Issue 103 ■ September ■ 1996 ■ £4.50 *Overseas price £4.50 Hfl 20*

AMIGA COMPUTING

Get online, offline!

Sept 1996

AMIGA COMPUTING

Requires hard drive, WB3.0, Magic User Interface

iBrowse

Amiga Computing *gives you the chance to get the on-line experience from the safety of your own hard drive*



Sept 1996

AMIGA COMPUTING

Requires hard drive, WB3.0

TOOLtime

- ***Xtruder 2.6*** – up-to-date virus checker
- ***ReqTools*** – the latest update
- **PictureMenu** - jazz up your old menus
- **ModePro** – get the screen modes you want
- ***UpDateCopy*** - never overwrite new files
- ***NoNewIcons*** - kill off unwanted NewIcons
- **MIS** - simplify icon handling
- ***Font Datatype*** - view your fonts easily

Protect and survive

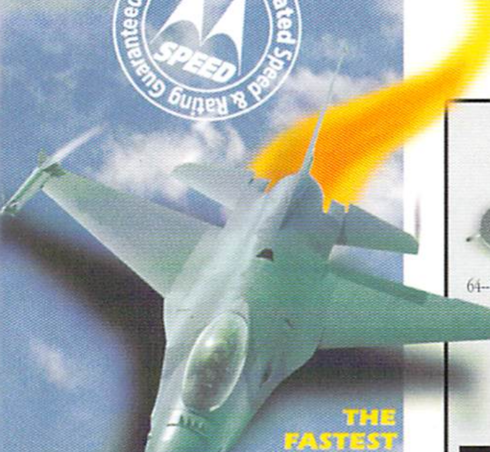
Securing your system against viruses and hard drive meltdown

PLUS

- *Monitor roundup*
- *Tower special*
- *Photogenics 2*
- *Web page design*
- *Game construction kit – head-to-head*

IDG MEDIA

The World's FASTEST AMIGAS are on this page!



THE FASTEST BOARDS AVAILABLE, NO ONE ELSE COMES CLOSE!

COMPARE THE PERFORMANCE FIGURES FOR YOURSELF!

Std A500/600/1500/2000	0.55/0.72
Standard A1200	1.33
Standard A4000, '030	4.43
A1200 with 1230-IV, '030 & 4Mb	9.91
Standard A4000, '040	19.10
A1200 with 1260, '060 & 4Mb	38.71
A1500 /2000 with 2060, '060 & 4Mb	38.71
A4000 with Cyberstorm, '060 & 4Mb	39.85

Comparative MIPS performance figures measured using SysInfo. Each board had the appropriate SIMM fitted (required to activate accelerator).

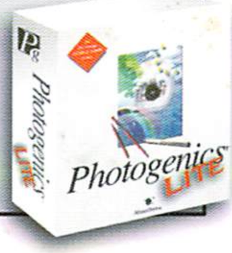
CYBERVISION 64

64-BIT ENGINE A3000/4000 24-BIT COLOUR ACCELERATED GRAPHICS CARD. For all Zorro-3 Amigas, this 64-Bit high speed graphics engine/blitter offers up to 1600 x 1200 pixels in 8-Bit colour or 1024 x 768 pixels in True 24-Bit Colour, with 2Mb of display memory (4Mb user upgradeable).

Cybervision 64... 2Mb - £299.95
Cybervision 64... 4Mb - £399.95

LIMITED OFFER FREE PHOTOGENICS LITE SOFTWARE WITH CYBERVISION 64s

FREE PhotoGenics LITE...Powerful software for image manipulation - the ULTIMATE 24-bit graphics package for A3000 or A4000! Includes 27 effects for processing photos/images such as Emboss, Solarize, Texturize, Add Noise etc. as well as Paint Tools inc. Chalk Pastels, Crayon, Felt Tips & more - Brilliant! (Packaging is shown for illustration purposes only and is not included)



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NEW — THE WORLD's FASTEST... NO QUESTION!

NEW SECOND GENERATION OF THE FIRST EVER 68060 AMIGA ACCELERATOR When you fit Cyberstorm II to your A3000, A3000T, A4000 or A4000T you can, for example, render a graphic with Imagine 2.0 software in Just 2.45 minutes... Compare that with a massive 10.34 mins on a standard A4000 '040/25! With no jumpers Cyberstorm II is fully plug and play and A4000 users can choose between SCSI-2 and SCSI Fast and Wide options (A3000 users already have SCSI built into their Amiga hardware).

- Up to 128Mb of standard SIMMs can be installed and you can even transfer the 72Pin SIMMs from your Amiga A4000 straight onto your new Cyberstorm.
- Options include a SCSI-2 module, or a SCSI Fast and Wide module *(Available in April/May '96)*

Cyberstorm II 68060/50...
50MHz 68060, 0Mb - Expandable to 128Mb) — £699.95
SCSI-2 Module — £99.95
SCSI Fast & Wide Module *(April/May '96)* — £149.95
SIMM RAM Expansions *(Please call for a range of SIMM prices)*



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Worth £29.95 *While stocks last!*

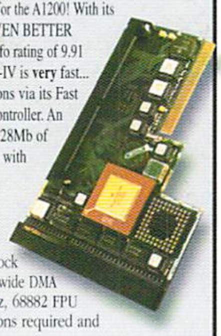
IN A BLIZZARD NO ONE CAN HEAR YOU SCREAM

TEAM17 ocean

BLIZZARD 1230-IV

50MHz 68030 A1200 TURBO ACCELERATOR & MMU
0Mb as Standard, Expandable to 128Mb
9.91MIPS with 60 Nanosecond SIMM fitted

The Blizzard 1230 MkIV Turbo Accelerator Memory Board is the highest performing 68030 accelerator available for the A1200! With its 50MHz 68030 and MMU, the new 1230-IV offers EVEN BETTER PERFORMANCE at a LOWER PRICE! With a SysInfo rating of 9.91 (using a 60 Nanosecond SIMM) you can see the 1230-IV is **very** fast... a performance gain of up to 500% is achieved! Options via its Fast Expansion Bus include Modules such as a SCSI-2 Controller. An industry standard SIMM socket provides for up to 128Mb of auto-configuring 32-Bit FAST RAM (or up to 256Mb with the SCSI-2 option using its extra SIMM socket).



- May be disabled with Simple Keystroke on Boot Up for Full Games Compatibility, even with Badly Programed or Older Software!
- Battery Backed Self Recharge Real Time Clock
- High Performance Expansion with Full 32-Bit wide DMA
- PGA FPU Socket allowing Optional 50MHz, 68882 FPU
- Easy Trapdoor Installation - no modifications required and does not invalidate the Amiga's Warranty

1230-IV Turbo 50MHz 68030 & MMU 0Mb, 32-Bit Fast RAM - Expandable to 128Mb — £179.95
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SCSI-IV KIT SCSI-2 Module for 1230-IV and 1260, with additional 128Mb SIMM socket — £89.95

THE WORLD's FASTEST A1200 '030 ACCELERATOR!

BLIZZARD 1260

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50MHz 68060 A1200 TURBO ACCELERATOR & MMU
0Mb, Expandable to 64Mb
38.71MIPS with Single Sided 60 or 70 Nanosecond SIMM fitted

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- High Performance Expansion - Full 32-Bit wide DMA
- Battery Backed Self Recharge Real Time Clock
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EASY TRAPDOOR INSTALLATION No modification needed Reliable low heat output

BLIZZARD 2060

50MHz 68060 A1500/A2000 TURBO ACCELERATOR & MMU
0Mb - Expandable to 128Mb
38.71MIPS with 60 or 70 Nanosecond SIMM fitted

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2060 Turbo 50MHz 68060 & MMU with Built In SCSI-2 0Mb, 32-Bit Fast RAM - Expandable to 128Mb — £699.95

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01 773 836781
or FAX: 01 773 831040
harwood@applelink.apple.com

Please note: Memory, SIMM and FPU prices may change without warning due to exchange rate fluctuations. Please confirm price prior to ordering. CALL TO CONFIRM AVAILABILITY BEFORE MAKING A LONG JOURNEY TO VISIT US. OUR OPENING TIMES ARE... Monday to Saturday, 9am until 5pm

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Blizzard products have consistently achieved the highest magazine accolades and awards!

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Amiga Computing *"...If you want the fastest Amiga in the World, get this board."* 92% BLUE CHIP Rating

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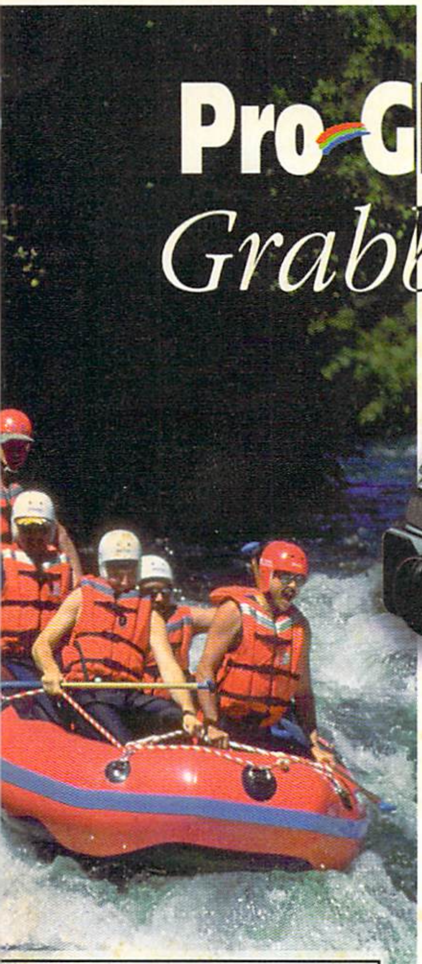
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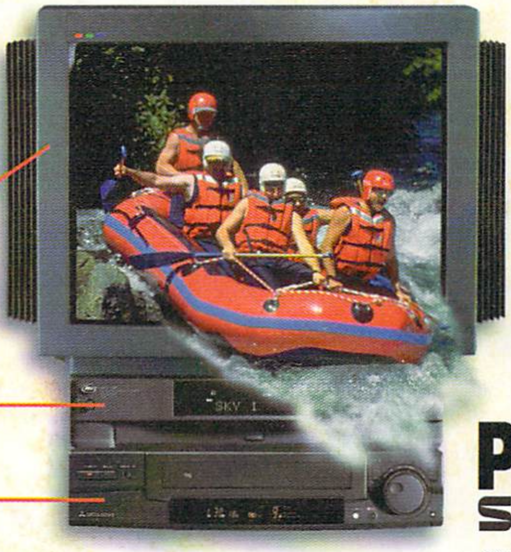
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or, Take a signal from a TV with SCART output...

or, Use the signal from your satellite receiver...

or, Grab TV or video pictures from your VCR's video output including S-VHS.

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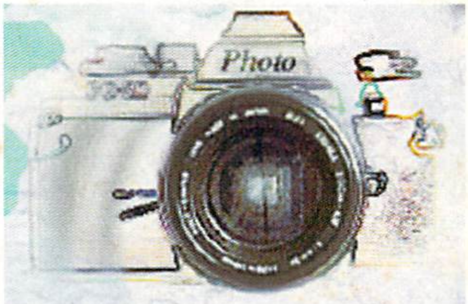




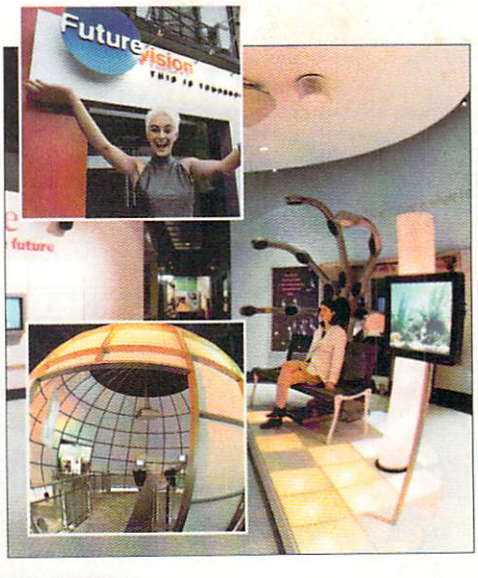


Reviews





Features





THE COVERDISKS



iBROWSE

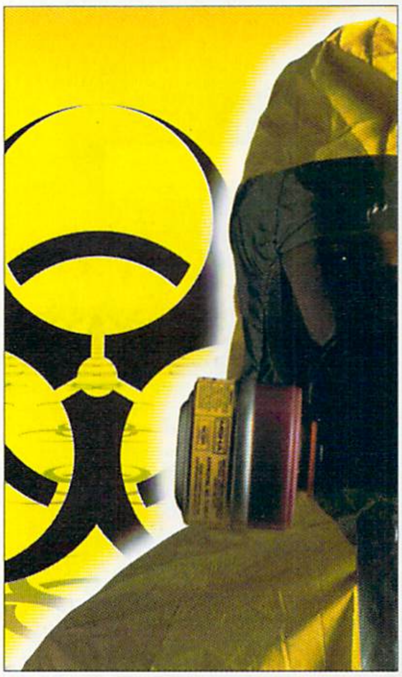
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TOOL TIME

As usual we delve into the depths of Aminet to bring you:

Xtruder 2.6; ReqTools; pictureMenu; ModePro; UpDateCopy; NoNewIcons; MIS; Font Datatype; AppTool; Hexamines;

COVER STORY



Gareth Lofthouse and Tina Hackett show you how to prevent that system meltdown with a few protection ideas

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AMIGA GUIDE

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For details of *Amiga Computing's* subscription turn to page 74



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CLOCK CARTRIDGE

Our unique and highly rated external Clock Cartridge will enable your Amiga to continually store the correct time and date in its own battery backed memory. Simply plugs onto the back of the Amiga and does not invalidate the warranty.
Compatible with ALL Amigas



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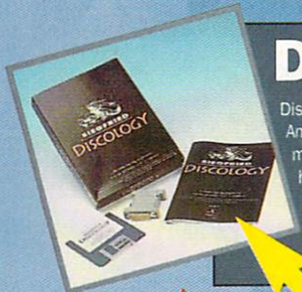


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PCMCIA fitting SCSI interface

DISCOLOGY



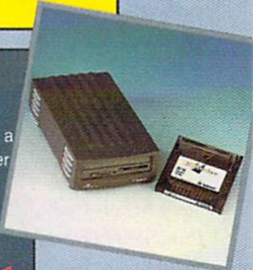
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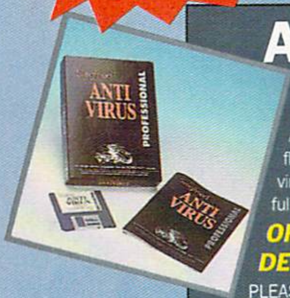
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ASIM CDFS only £49.99

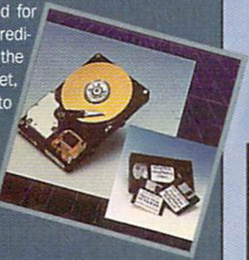
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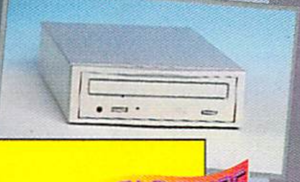
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APOLLO A1200 ACCELERATORS

APOLLO 1220

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Simple trapdoor fitting.

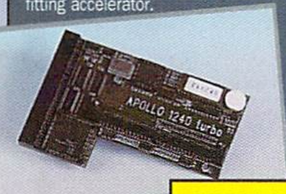


OLLO 1220 ONLY £99.99

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68040/68060+MMU based A1200 accelerator. Features battery backed clock and a 72 pin socket for a standard 72 pin simm (up to 128mb). Fully featured, fan cooled trapdoor fitting accelerator.



NEW

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Moving on at last

USA news

by **Katherine Nelson**

As stated in the home news pages, the agreement between VIScorp of Chicago, USA and Escom AG of Germany to purchase the Amiga technology for $40 million US in stock and cash has been signed by the CEOs of both companies, William Buck and Helmut Jost, respectively. William Buck has been the CEO of VIScorp since 1994. Helmut Jost, however, recently replaced one-time majority owner Manfred Schmitt shortly before the VIScorp agreement was announced in April of this year. The contract still remains to be approved by the board of directors of each of the two companies.

Users, developers, and dealers have been encouraged to send correspondence and input to VIScorp on the subject of the Amiga and its future. To this end, they have also hired Jason Compton, editor of the Amiga Report online magazine, as a liaison to the Internet community. Any comments may be directed to VIScorp at the address below, or in e-mail to Jason Compton at jcompton@xnet.com. A feedback form for this purpose can also be found in Amiga Report #4.08 on Aminet, at http://www.cucug.org/ar/, or on many other Amiga BBS or Internet sites.

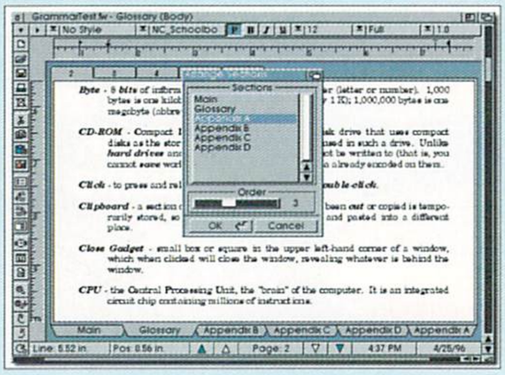
VIScorp stated that it plans to make licences of the Amiga technology available to other companies interested in using or bolstering the current chipset/operating system/etc. This news follows in the light of announcements from several companies such as Phase5 and Pios of plans to use and expand upon the Amiga and its operating system. VIScorp wishes to take a firm hand in guiding the direction of new Amiga growth and innovation.

A letter of intent has been signed between VIScorp and Emerson Radio Corp. which grants to Emerson the exclusive rights to sales and distribution of the UITI and the UITI-TV in North and South America. Emerson, maker of consumer electronics such as televisions, stereos, microwaves, etc., also has connections as a major supplier to large retailers in the United States, including Wal-Mart, Target, and K-Mart.

The UITI (Universal Internet-Television Interface) is a set-top interface that allows access to Internet and other on-line services when used with a standard television set. The UITI-TV incorporates the UITI into a television to form a 'smart' interactive all-in-one television unit. The UITI comes equipped with a built-in modem and a remote control that includes an imbedded keyboard. It also gives fax, speaker-phone, and Caller-ID capability to the television, and also includes a calendar, an address book, and games. Both of these units differ from the ED, another interactive television device from VIScorp, in that the ED also includes more non-Internet-based software

FINAL OFFER?

Softwood, Inc. has sent out a second mailing to users of its word processor, Final Writer, further encouraging an upgrade to Final Writer Release 5, which has already begun shipping. For the first time, all improvements made in the new version of Final Writer were made completely on the basis of customer input and requests, tailoring the word processor to those who use it. Design work for the future release of Final Writer 6 has commenced, and those upgrading to Final Writer 5 will receive a low upgrade price for the new version when it is made available. For more information, contact Softwood at the address below.



Final Writer 5 is now on offer from Softwood – an opportunity not to be missed

TV ADVERTISING

MagicBox, Inc. announced the MagicBox Photo Advertising System, which includes two Amiga 4000Ts, one CD-ROM drive, an RGB monitor, an NTSC monitor, a color inkjet printer, and choice of modems or ethernet. This is accompanied by software from MagicBox, as well as business and paint applications.

The package is marketed toward those who are starting up a television advertising channel, or who wish to modernize their broadcasting equipment. Furthermore, the same advertisements created for broadcast on a television channel can be placed on an Internet site for more coverage. On-site installation and training is also available, as is a startup kit which describes the channel creation process step by step.



Run a TV channel on two A4000Ts

CROSS OVER

Crossings, a newsletter published in New York by Deland Editorial Services, has announced that sets of back issues are available for $99 US. The set spans the seven years for which Crossings has been covering PC and Mac emulation on the Amiga. Specific back issues are available and can be purchased for $4.95 US each. Crossings is on a hiatus for this summer, but the publisher plans for it to return in the fall. The annual subscription rate is $48 US.

CONTACT POINT

VIScorp
111 North Canal Street, Suite 933,
Chicago, IL 60606 USA
vox: (312) 655-0903 fax: (312) 655-0910
WWW: http://www.vistv.com/
E-mail: flo@vistv.com

Softwood, Inc.
Suite 270 7776 S. Pointe Parkway, West
Phoenix, Arizona 85044 USA
fax: (602) 431-8361
WWW: http://www.softwood.com/

Deland Editorial Services
Ste 26E, 345 East 93 St., New York,
MY 10128 USA
vox: (212) 369-8131

MagicBox, Inc.
850 SW, 15th St. Suite 1C Corvallis,
OR 97333
vox: (541) 752-5654
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The interface simply plugs onto the 44 pin IDE connector inside the computer (still allows a 2.5" or 3.5" internal hard drive to be used as well!) and provides a connector in the blanking plate at the rear of the A1200 next to the mouse socket. This can be installed by anyone in 5 minutes!

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news

By **Tina Hackett & Hugh Poynton**

FINAL AGREEMENT SIGNED

At long last, it looks final that VIScorp will be the new owners of the Amiga. On 24 June, Escom and VIScorp signed the final agreement regarding the acquisition of Amiga Technologies GmbH by VIScorp, subject to approval by their boards. This means that the entire staff and property of Amiga Technologies will pass into VIScorp's possession. Apart from the Commodore trademarks, VIScorp will own the existing components and finished goods inventory of the Amiga and the intellectual properties of the former Commodore group. Amiga Technologies GmbH will still coordinate the production and distribution of the Amiga at its headquarters in Benshiem, Germany. The purchase price was reported to be US $40 million in cash and stock.



VIScorp, maker of the ED, has signed the final agreement with Escom

EZ LIFE

SyQuest has just announced that it has slashed the price of its EZ135 Drive. Previously, it charged £139 for the parallel port version, £165 for the SCSI configuration and £199 for the parallel port configuration, but now all versions are only £89. Ron Brown, Vice President of marketing explained this move: "We have taken this aggressive step because SyQuest intends to expand its installed base among computer users who want the highest performance removable storage." He continued: "This is a proactive investment to introduce prospective new customers to the superior performance of removable cartridge hard drive storage over alternative removable media technologies."



SyQuest slashes the price of its EZ135 drive

EVERYTHING'S GOLDEN

Arachnaphobics need not fear. The new Spider from Golden Image is not an arachnid but an eight port serial card which features a high speed throughput of up to 57600 baud across all eight ports simultaneously. It allows connection to eight separate serial units via standard 25-way, d-type connectors. Priced at £299 including VAT, it is compatible with the Amiga 1500, 2000 and 4,000. It fits into one standard Zorro slot and allows you to connect to serial devices such as serial printers and modems.

Golden Image has also announced a special offer on its 4Mb RAM card with clock. Only available for orders placed in July and August, or until stocks last, the card increases the speed of an Amiga 1200 to more than twice as fast as the graphic RAM. The offer price for this is £79.95 plus £3.50 mail order postage. Call its enquiry line for more details on 0181-900 9291.

Busy as ever, it has also just released its Ethernet adapter, ConneXion. This enables Amiga 1500, 2000, 3000 and 4000 users to be connected to a standard Ethernet network to share files and other resources. It provides a fast 10-Mbit Ethernet link with 10 Base 2 connectivity through a BNC adapter. You can also connect to any other Ethernet standards via the AUI interface.

ConneXion also has a 32K, 16-bit on-board cache to reduce the usual burden a network puts on the machines, meaning the running speed remains fast. It is available from Golden Image for £185 including VAT.

KNIGHT TIME

White Knight Technology has been appointed as MacroSystem's exclusive UK distributor. MacroSystem has produced products such as the VLab Motion and Retina and also the DraCo which provides high quality non-linear video editing capabilities. The DraCo scored an amazing 10 out of 10 in *Amiga Computing* not so long ago.

White Knight has announced that it will shortly be forming a new company to handle sales of the DraCo Video Editing Workstation and any future non-linear editing systems to specialist video dealers. MacroSystem is also about to announce a new product called Casablanca which, according to its news release: "represents an entirely new concept in consumer video editing." Watch this space.

White Knight has also slashed the prices of its 24-bit graphics cards. For example, there is a huge saving on the Retina BLT Z3, a Zorro III card for the A3000 and A4000, where the price has been cut on a 1Mb board from £379 to £235 including VAT. Contact White Knight on 01920 822321.



The DraCo is now available through White Knight Technology who is now the exclusive distributor of MacroSystem's products

Having trouble setting up NComm? Jason Jordache offers some advice

comms

The trouble with NComm

NComm is one of the most widely used terminal programs from which to call BBSs, stretching so far as to be a favourite with some who have sufficient memory to run alternatives such as Term. Problems logging on to BBSs and ANSI displays are commonplace when setting up NComm. One guy I knew, no amateur to Comms, didn't even realise when logging on to a BBS I once ran that his ANSI wasn't working from NComm, asking me to redo my screens using plain ASCII instead. So I wrote a little text file to put online, explaining a few pointers to follow after installing the program, which led pretty much to what you'll read here.

We start off with a few options to tweak in either version 2 or 3, accessed via NComm's pull-down menus. In the following, where it says Options/ZModem Resume, for instance, go to Options in NComm's Transfer menu where a sub-menu will pop up. From this sub-menu, make sure ZModem Resume was ticked.

Transfer pull down menu:

```
Options/ZModem ResumeOptions/ZModem
AutoDLOptions/ZModem AutoUL
Protocol/ZModem
Default Directory/Download
```

The 'default download directory' should point to a directory on your HD where downloaded files are to be stored, i.e. Files:Comms/NComm/Downloads.

Translate pull down menu:

```
Character Set/IBM
```

Com pull down menu:



This is garbaged ANSI. Notice, though, how all the standard ASCII characters you can type via the keyboard work fine, unlike the IBM characters



And this is how it should look



The IBM character set that combines with a little colour to form ANSI



ANSI given colour and meaning. The effect of lines and solid blocks of colour would be ruined without a correctly installed IBM set

```
Baud Rate/38400
```

The rate of 57600 can also be used, but sometimes the ANSI gets corrupted on lower-end machines. You would need an improved, replacement Serial.device such as BaudBandit.device, available on many BBSs.

```
Data Length/8 BitsParity/NoneStop
Bits/OneDuplex/FullHandshaking/RTS+CTS
```

Save the changes you've made. The settings in Workbench are now altered to be in line with the changes in NComm. Flick over to WB and go into the Prefs directory on your boot disk. Double-click the Serial icon, and the options you find there are to reflect the options outlined above. That's Handshaking = RTS+CTS, Parity = None, Bits/Char = 8 and Stop Bits = 1. Try the Baud rate at 19,200 to start with, put the Input Buffer Size to maximum and click on save.

Term

The main problem after installing Term is getting the screen colours right when logging on to BBSs. To solve this there is a little config on this month's coverdisk called term.prefs. It will overwrite any config changes previously made, but it works a treat and is a good base to build from. Just replace your existing Term config with the one on the coverdisk.

Clearing up the ANSI

ANSI screens, created from a selection of graphical characters (akin to the symbols you could type on C64s shown on the front side of keys), are turned into gibberish characters on an incorrect ANSI display, instead of appearing as proper ANSI symbols.

The IBM character set needs to be installed correctly on your machine to view the graphics sent by the BBS. If you're not seeing ANSI correctly we need to make sure NComm is doing it right. All you need to do is to make a couple of Assigns in your User-Startup. Firstly, load in any word processor. If there's a text file called 'User-Startup' in your S directory then load it in, otherwise create one in S after typing in the two assigns. The Fonts directory is found o[illegible] the disk or partition you booted from [illegible]ess you have assigned it elsewhere – in which case you'll know all about assigns – and the IBM fonts for Comms use should be in this Fonts directory. On a fresh line in your User-Startup type the following:

```
Assign Fonts: Sys:Fonts
```

Sys is an all purpose word for depicting the disk or partition your machine boots from. You could just as easily type 'Assign Fonts Work:Fonts' if your boot disk was named Work. On the next line type:

```
Assign NComm: <pathname to NComm>
```

The pathname tells you where NComm has been installed on your system. If the NComm directory was on a hard drive partition called Files and in a directory called Comms, your pathname would be: Files:Comms/Ncomm. You'll should end up with something like the following:

```
Assign Fonts: Sys:FontsAssign NComm: Files:Comms/Ncomm
```

Save out the text file and that's it, you've now got two new assigns. Reboot your machine and discover the refreshing, ungarbaged glory of pure ANSI.

Phil South continues his series on how to bring an Amos project to fruition

amos

Pulling it together

part 3

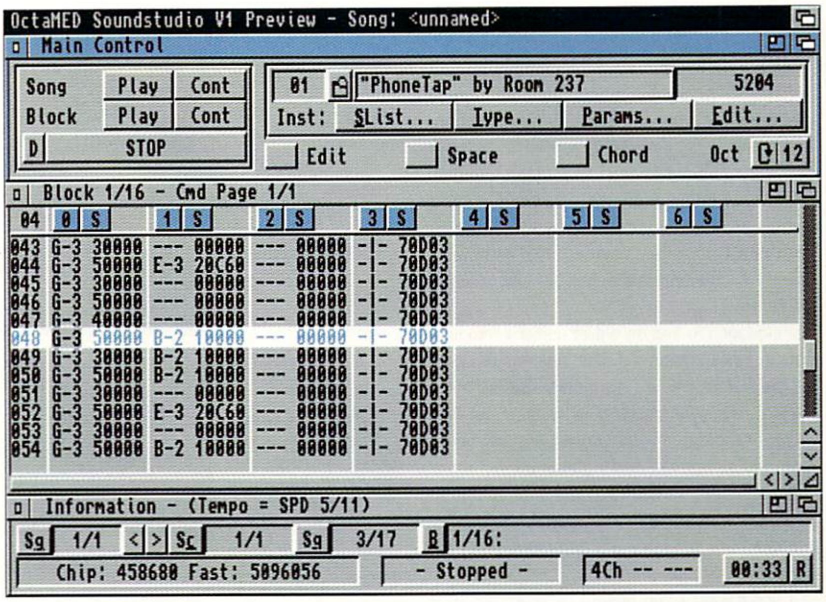
As we said last issue, the program is starting to come together now and all we need are some bits of music, some graphics and sound effects, and perhaps even a start-up and exit screen.

Now we can sense mouse clicks on our interface, what do we want to happen when a key is pressed? The sound of a button clicking? Well, first you have to sample the sound. We all have keyboards, don't we, so all you have to do is record the sound. Obviously, you have to have some kind of sampler for your Amiga, and there are many to choose from. I use a Sunrize Perfect Sound cartridge and Audition 4 for my sampling, but anything which samples a sound will do. Those nice cheap PZM flat microphones usually give a clean sound, but they can be a little difficult to position, being made of a flat sheet of steel the size of a beermat. However, they only cost about £25 in Tandy.

Noise levels

In any event, I would suggest that you use a really good microphone to record the sound and set the record level up really high. My keyboard hardly makes any sound at all, and if this is true of your keyboard, perhaps you could sample an electronic typewriter which makes a satisfying click when a key is pressed. Perhaps a suitable alternative is a light switch as they make a more positive click.

On the sampling front, don't make your samples too heavy duty in the samples per second front. A simple 11Khz sample is usually enough and, surprisingly, high fidelity considering how few bits there are. Edit your sound to remove any clicks and background noise, apart from the click you want to hear, that is.



Adding music to your project is easy with OctaMED

What about a little voice-over to add to the multimedia experience? Well, the same things apply to your voice-over recording that apply to your click, except you need a really quiet room to record the sound. Try recording in the middle of the night to reduce traffic noise, and record in a room with big heavy curtains over the window to muffle the reflections of the sound from the walls. Use the same good quality microphone, like the PZM we mentioned earlier, and edit your voice-over to be as short as possible. Voice samples take up a lot of room, so if you want your program to fit on less than one CD, I suggest you keep it short.

Once you've made your samples, plug them into Amos using the sample bank editor. Then you can call up your samples using the Amos Sam Play command.

Music maestro

What about music? You play music using the Track commands, but how do you create it? You could be cheeky and take a bit of public domain music from one of the many disks you can buy over the counter, or you could always make your own with OctaMED Sound Studio. You can't, obviously, use anything like hybrid sounds or any fancy stuff like that because Amos was cast in stone long before OctaMED became a standard. As long as you save your songs as normal Soundtracker or Noisetracker modules you should get some sort of joy out of it.

If you've never used a tracker then OctaMED is a good place to start because the documentation gives you instructions on how to use the codes at the side of the notes to add effects like vibrato and pitch shifting. You do have to be a bit musical, but there's nothing to stop you doing something very simple and short, a drum beat and a bass line, for instance, which repeats. This is a good idea anyway because music soundtracks also take up oodles of room in the memory banks. Rather than stealing a whole tune, why not use a tracker editor to take the bass and drum line from a tune you like. Change the samples to your own and slow it down - you've now made something out of nothing with no musical skill whatsoever! It's a little bit on the cheeky side, but what's a little plagiarism between friends, hmm?

The final questions as to whether we want the pictures of the products to occupy a screen above the buttons and a text description to appear to the right will be dealt with next time. See you then.

Write stuff

If you have any other Amos programs or queries about Amos, please write to the usual address which is: Phil South, Amos Column, Amiga Computing, Media House, Adlington Park, Macclesfield SK10 4NP. Please send routines on an Amiga disk with notes on how the program works on paper, not as text files on the disk. Make the routines short enough to appear in print, i.e. no more than about 30-40 lines of code, and if possible make them use no external graphics, or if they can't be used without them then be sure to provide them on the disk in native IFF format, and the same goes for sound files. Follow these guidelines and you'll be sure of making me a happy man if nothing else.

Paul Overaa provides some much needed help for one of our readers

music

Nightmare on Midi street

Question Dear Paul, I am writing to you in absolute desperation! I purchased a Korg X5D synthesiser and Music X2 in January. I thought it would not take long to get my system rigged up and running, but I'm still no nearer to sorting it out. Music X seems to need what it calls a 'protocol' but, as the manual says, you need to be a genius to write your own, so they're best obtained from other sources. Ha! Where? I haven't a clue and the technical helpline is no longer open.

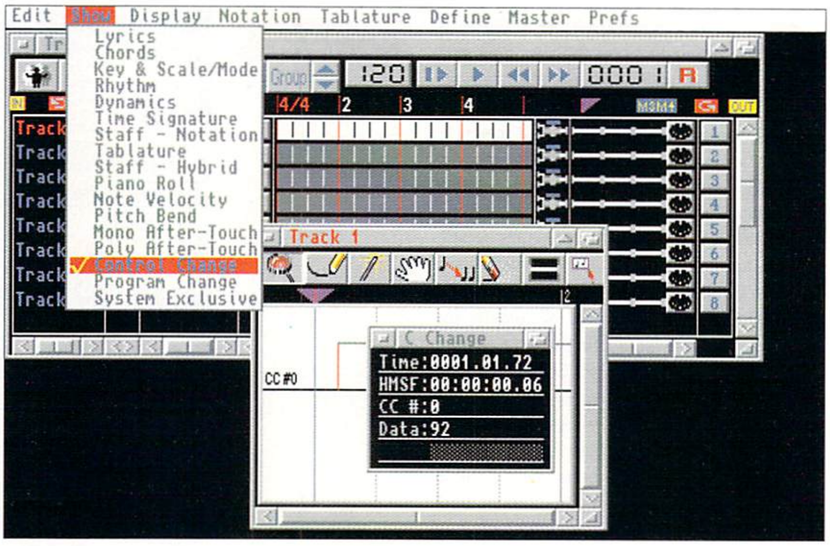
I managed to find an old coverdisk containing Bars & Pipes version 1.1 and installed this onto my HD but frankly, it's no bl**dy use without a manual. The main problem is trying to get it to record the programs I'm playing (it's OK until I save and switch off), and I gather it's got something to do with the System X feature. I've tried to receive data into Bars and Pipes but it ends up sounding like a bizarre piano arrangement the next time I boot up!

I understand I can have 128 programs in a Midi bank but how do you mix programs from different banks together? Is this what a librarian does? And how does System X relate to this?

Johnathan Oates, Nottingham

Reply *Johnathan, You seem to have become locked onto the idea that system exclusive messages (which is presumably what you mean by System X), are needed to select and use different synthesiser voices. They're not – in fact they are only needed if you want to send or receive dumps of your synthesizer voices, i.e. the binary data that represents those voices. I'll explain more about that in a moment but, given that you are new to Midi, I suspect all you really need are a few suitably placed program change commands in your sequences to select the instrument voices already present in your synth.*

There are two basic ways of doing this: You either edit the sequence after you have recorded it in order to insert the required patch or, once you have started recording, you manually select the appropriate voice on your synth (whenever you change a voice in this way a program change command will be transmitted).



Bank select commands will appear as controller messages in Bars & Pipes

I haven't got a copy of Bars&Pipes 1.1 but the basic facilities were much the same as Bars & Pipes Pro itself. By default it should record all incoming Midi data, so the fact that you are not getting any synth voice changes suggests to me that the program change commands simply aren't present in your songs. Bars&Pipes has a Show menu option for displaying these commands so it will be easy to check this. Incidentally, there is a Record option in the B&P Window menu that allows you to specify the various events types to be recorded).

Now having said all that, although I'm not familiar with the X5D, I do know that it is a General Midi synth which supports multiple voice banks. If, therefore, you only inserted program change commands into your songs you'd find that you would only be selecting voices from the currently active X5D bank. In order to specify a voice from a particular bank, chances are that it's also necessary to transmit a Bank Select command as well (these are channel specific so you will be able to select voices from different banks using different Midi channels).

Bank Select changes are based on controllers 0 and 32 and, again, you can either edit your sequences in order to add these commands, or simply start your sequencer recording and then manually select the voice you wish to use. I would imagine that the X5D will transmit both bank and program change messages when you select different voices – it might, however, be worth checking your manual here. You'll also need to check your sequencer settings to make sure that controller messages aren't being filtered out! Now we come to the system exclusive connection. Your synth has bulk dump facilities which allows its voice data to be transmitted down the Midi line. This information is sent using a specialised Midi data packet called a system exclusive or sysex message. You might want to do this if, for instance, you had manually changed the characteristics of some of your synth voices or rearranged the bank positions of the voices in some way and wanted to save those settings and then create some new voices.

Surprisingly few musicians get involved with this because the average synth has such a variety of preset voices built in nowadays. Nevertheless it's these sorts of tasks that Editor/Librarian packages are used for (voice editing done in this way is much easier that when done via the synth front panel). One added complication with voice dumping, however, is that while some synthesizers can be encouraged to send their voice data easily, others need extra handshaking messages to be used. Again this is done using sysex and the purpose of Music X's Protocol arrangements is to allow these different schemes to be catered for.

The bottom line, however, is that none of the voice selection operations that I think you should be concentrating on have anything to do with sysex control. Perhaps, with this in mind, you ought to forget about Music X's protocol arrangements and concentrate on its basic Midi sequencing facilities. As far as Bars & Pipes is concerned, the package is too big to attempt to use without a manual. If you wish to stick with this sequencer, the only suggestion I can make is to try advertising for a manual in one of the magazines that specialises in small adds for computer users!

I hope the above notes help – Paul

AFTERTHOUGHT

I ought to mention that when you are building multi-part arrangements, you'll want to set up voice/channel combinations on any number of Midi channels. The X5D allows you to create these sorts of multi-timbral settings and I'm pretty certain that once you've set these up you'll be able to remotely access them using just program change commands. Your manual will give the details but I should imagine that it will be done by sending program change commands on a Midi channel that your X5D regards as its 'global' channel.

2D paint

Caught in the Web

Steve White continues his look at interactive multimedia art and design

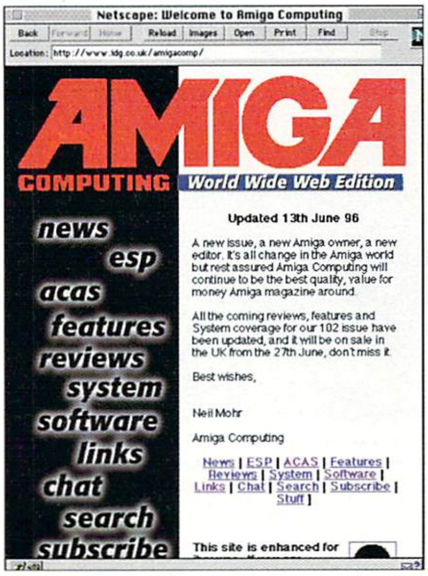
Last month I described the techniques you can employ when designing multimedia-style applications such as game interfaces. However, there is one other form of multimedia design which is growing ever greater all the time and that is World Wide Web (WWW) design.

Although the Web originally started out as a pure source for information with limited design and lacklustre presentation, it is steadily involving into a multimedia showcase with, rightly or wrongly, graphics playing a major role.

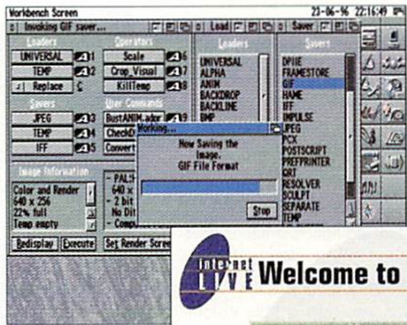
The problem with the Web is that the computer, or client, side of operations is advancing quickly with better and more powerful browsers, applets (small self-contained programs), and even virtual reality, but the communications or server side is moving very slowly. Therefore, the first key point to remember is that although computers can efficiently handle flash graphics, the networks can't.

So, the basic law when designing Web-based graphics is to try and keep them small and maintain a low resolution. Images should ideally contain no more than 16 colours.

Of course, you can use picture formats such as Jpeg but even this type of format can be slow, therefore the most favoured is GIF. Unfortunately, most Amiga paint packages do not support other picture formats other than IFF/ILBM. Therefore, you will need to use an image processing package such as Art Department or ImageFX which are always making appearances on coverdisks. However, by far the cheapest method is to check PD houses or Aminet for shareware image processors which can be just as powerful as their commercial relatives. Once you have the tools to convert your images you need to think about design. Unlike a single picture, with the Web you are not restricted to a set palette – therefore you can use a separate palette for each image which in some way makes up for the limited amount of colours you are ideally restricted to.



When designing graphics for the Web try to keep them as small as you can and with only 16 colours



If you haven't already done so, you should consider hunting out an image processing application



The World Wide Web is growing more into a multimedia extravaganza every day

Spread it thin

There are certain techniques you should try and avoid when designing graphics for the Web. The two most important functions you should try to avoid are anti-aliasing and colour spreads.

Anti-aliasing creates transitional colours between the foreground and background in order to smooth their appearance and reduce the chance of jaggies (the blocky look of pixels). Although anti-aliasing can improve the quality of your image, the fact that it creates transitional colours means a bigger palette. Most Web designers start off with a greater palette than the one they plan to finish with, and if you follow this philosophy you may find that your 256 colour, anti-aliased picture looks terrible when reduced to 8 or 16 colours.

Spreads or blends of colour in an image can add that sense of realism and polish, but once again they require a large portion of the palette and may lose their original appeal when you reduce the picture to 16 colours.

Of course, by planning your image in advance of creation and starting off with only 16 colours, you can effectively avoid the problems above. As the Web is essentially a multimedia environment you won't need 256 colour images. If you have to create high resolution graphics with 256 colour palettes, providing the client with a low resolution image first which they can either click on to display the higher resolution version or simply ignore.

If you have, or are planning to use the Web you will have noticed that many sites have attractive looking backdrops which, on first glance, appear to be full size screen images. The Web browsers treat background graphics in the same way that Workbench does – it tiles them – so all you need to do is create a small graphic that, when repeated, joins up perfectly, creating what appears to be a single image.

The MagicWB set of backgrounds work exactly like this, and the benefit is that the client only has to download a small graphic which is then automatically tiled by his or her computer. Although the Web is changing more and more every day into a multimedia extravaganza, it must be remembered that the Web's sole purpose is to provide information. Therefore, don't feel compelled to overload your site with graphics. Although many Web designers do this it can, in many, cases render the site totally useless. Provide graphics where you feel it is necessary to improve design and provide the client with a neater way of using the site.

An excellent example of this is when creating a navigation strip so that the client can negotiate their way around your site without getting lost. A navigation strip can be clearly marked with neat little images or icons which are small in size but indicate their purpose clearly. Take a look at application programs on your Amiga for inspiration – even your paint package may offer some solutions. Most Amiga applications such as Final Writer, Wordworth and Organiser all feature clear and concise icons using only 8 colours.

Paul Austin adds the whistles and bells to the final frontier masterpiece

3D graphics

Finishing touches

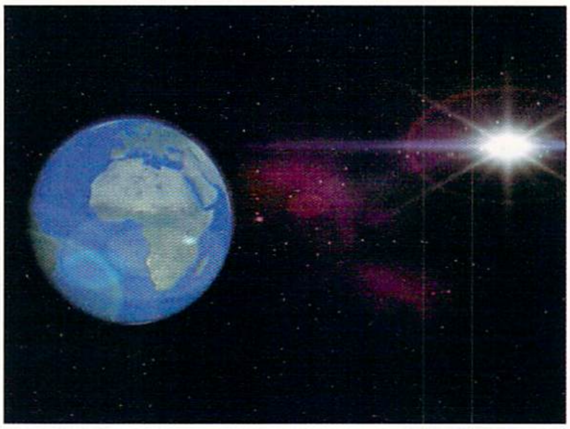
Over the last few months we've developed a concept, drawn the roughs, built the ship and added the all important detail and textures to our project. This month I'll be concentrating on adding realism to the overall image with galaxies, engine flares and the odd subtle touch that simply brings the image to life.

Perhaps the simplest addition is a minor alteration to the background colour. Although deep space is black it's invariably much more attractive and believable if you add a little colour. Using the background gradient controls, simply adjust the zenith and nadir colours to deep, almost black blue colour, leaving the sky and ground colours at their default black.

Although the effect doesn't, and indeed shouldn't, jump out of the screen, it does add depth to the image while enhancing a feeling of volume and truly huge perspective.

For the next trick it's time to head off to your favourite paint package to start constructing a galaxy. It sounds tricky, but in reality it's pretty simple. Using a soft edged air brush simply draw some large splurges of colour. Obviously, there's no real rule to this process, but it's usually wise to use colours which blend easily such as reds and purples, blues and green and so on.

Simply slapping down wild variations in colour isn't very convincing. If possible, also vary the opacity of the brush stokes which, in the finished image, will enhance the feeling of variation in cloud density. When you're happy with the overall look make sure you blend and smooth the image, removing the majority of harsh tonal changes. If you wish you could also experiment with twirling the area's image.



Our improvised galaxy plus the subtle gradient for added emphasis

Assuming your masterpiece is complete, save it out, but don't close the image. Now your colour map is complete it's time to create the all-important transparency map. To do this, convert you original image to a greyscale and save out. If you don't create a transparency map your galaxy will obscure anything behind it such as a planet, a ship and, of course, the star field – not very believable!

Once your maps are complete, introduce a flat plain into the scene, and planar image map the colour image into the colour texture filed and the greyscale into the transparency defuse fields. Instant galaxy!

Colour control

Surface colour	255,00
Texture type	Fractal noise
Texture size	0.1,0.6,0.1
Texture centre	0,0,0
World coordinates	off
Texture falloff	0,0,0
Texture velocity	0,0.03,0.001
Texture colour	255,255,0
Frequencies	3
Contrast	0.5

Transparency control

Transparency	100%
Texture type	Fractal noise
Texture size	0.05,0.15,0.05
Texture centre	0,0,0
World coordinates	off
Texture falloff	85,40,85
Texture velocity	0,0.03,0.001
Texture colour	255,255,0
Texture value	0
Frequencies	3
Contrast	1.0

Burning ambition

Although, in this case, we'll be developing an engine flare, the same flame effect can be used with a wide variety of flames. The first step is to produce a suitable shape of the object, and invariably this will be an elliptical or egg shape.

This is achieved by simply creating a default sphere in modeller and then selecting the upper hemisphere and stretching it until you produce the appropriate teardrop shape. When you're happy with the shape, save it out and load up Layout.

Then it's time to add the appropriate colour to the flame. In our case the flame is a traditional red/yellow, but depending on the project you could elect for a blue/white flame or whatever takes your fancy. To achieve the effect we'll need the assistance of our old friend fractal noise. Once the object is loaded, select it and open the surfaces requester.



The finished flare in all its glory

Make the colour field 255,0,0 then click the colour texture button and select fractal noise, making the texture colour 255,255,0. The key here is to make the texture size taller in the Y direction and slightly smaller in the X and Z, making the texture itself stretch upwards. In this case I elected to make the texture size slightly larger to produce a longer flare on the overall flame. Once all the texture parameters are set correctly – see flame colour control – it's time to move on to transparency. Once again we'll use fractal noise to create the desired effect. However, the real key is to make the texture fade as its energy dissipates – see transparency control. Apart from adding the necessary parameters to the texture field, it's important to set transparent edges to soften the overall form.

The final task is to animate the texture and therefore bring our flame to life. To achieve this we'll use texture velocity to move the texture along the Y axis. It's also worth adding a small amount of X and/or Z velocity in order to make the texture undulate slightly as it travels along the flame. Add a light and lens flare to the heart of the flare and you're done. Have fun...

Steve White explains how you can create stunning applications in Blitz Basic 2

Blitz Basic 2

Blitz and pieces

Last issue I explained the purpose of this tutorial would be to create a standalone Workbench application – BOOTit. The function of this program is to enable you to disable programs in your WBStartup drawer so that they are not loaded when Workbench loads.

I also mentioned that we would need two programs to make the package work – BOOTit and EnableBOOTit. So, to kick off we'll start with the main program, BOOTit, which makes up 80 per cent of the package.

The plan is to make BOOTit load if the right mouse button is held down when Workbench begins to load. Therefore, the very first thing we need to do is to test for the right mouse button and if pressed, load the main BOOTit program:

```
NoCli

DEFTYPE.l

Let compile=0
If compile=1
                    If Joyb(0)=2
                              Goto bootit
                    Endif
                    End
EndIf

.bootit
```

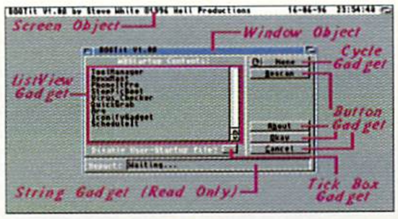
The first line which disabled the Blitz Basic 2 CLI. DEFTYPE sets the default variable type (l for long) for those variables that are not allocated a type. By setting the compile variable to 0 we can test the program without having to hold the right mouse button down.

The next section of code is the routine that, provided compile=1, checks to see if the right mouse button is held down and if so, jumps to the routine called bootit. If the button is not held down the If Joyb(0)=2 routine fails and the program Ends or quits. The next section of code sets the display and should be typed directly under .bootit:

```
WBStartup
Find Screen 0
Use Screen 0

#tag=$80080000
#GTNM_Number=#tag+13
#GTTX_Text=#tag+11
#GTCB_Checked=#tag+4
#GTCY_Active=#tag+15
#GTLV_Top=#tag+5
#GTMX_Active=#tag+10
#GA_Disabled=$8003000e
#MOUSEMOVE=$10
#INTUITICKS=$400000
AddIDCMP #MOUSEMOVE+#INTUITICKS
```

WBStartup has to be included for all programs you wish to run from the Workbench environment.



This diagram clearly indicates what objects we will be using for BOOTit. The real power comes from GadTools

Without it your program would crash. We then find the current screen and allocate it screen object 0. Then make screen 0 the active screen by Using it, and it is on this screen that the main interface will be displayed.

The following tags should always be set with Workbench applications that use GadTools, as they allow us to manipulate the gadgets quickly and easily. The MOUSEMOVE and INTUITICKS are Window settings that are added to the default Window setting flags by the line AddIDCMP #MOUSEMOVE+#INTUITICKS. The flags are actually called IDCMP flags and allow us to catch events within a Window such as key presses, mouse presses and gadget selections. When we open the main BOOTit window later we will be setting other important IDCMP flags.

THE STORAGE ARRAY

Before we can draw the main interface there are still important settings we have to make for BOOTit to operate properly. The next section of code sets the array we will be using to store the names of the programs in the WBStartup drawer, and whether they have been disabled or not:

```
NEWTYPE.wbstartup
a.w
name$
status.b
al = End NEWTYPE
Dim List contents.wbstartup(200)
;Gosub readwbstartup

;If amount=0
;  End
;EndIf

DEFTYPE.Screen *wbscreen
*wbscreen=LockPubScreen_(0)
al = Let fsize=*wbscreen\BarHeight-10
UnlockPubScreen_ 0,*wbscreen
font$=Peek$(*wbscreen\Font\ta_Name)
fontsize.w=*wbscreen\Font\ta_YSize
Let font=fontsize-8

Let selected=0
Let ss=0
Let gadgetid=50
```

The NEWTYPE array is called contents .wbstartup and is set to hold 200 WBStartup program names and status. These items are altered as programs are selected and deselected. The line Gosub readwbstartup is deliberately disabled and will require enabling in the next article.

The next section of code tests a variable called amount which is returned from the subroutine readwbstartup. However, as this routine is disabled, so to should be the amount test.

For your programs to work correctly, font sensitivity has to be catered for. If someone is using a larger screen font than the one you use they will find that any graphics or GTBevelBoxes will not appear in the positions you set them in. Therefore, the next section of code checks for the size of the font they are using and then reduces this by 8. The remainder, held in the variable font, can then be used to position graphics and GTBevelBoxes correctly, even when a different screen font is used. I will clarify this point later on.

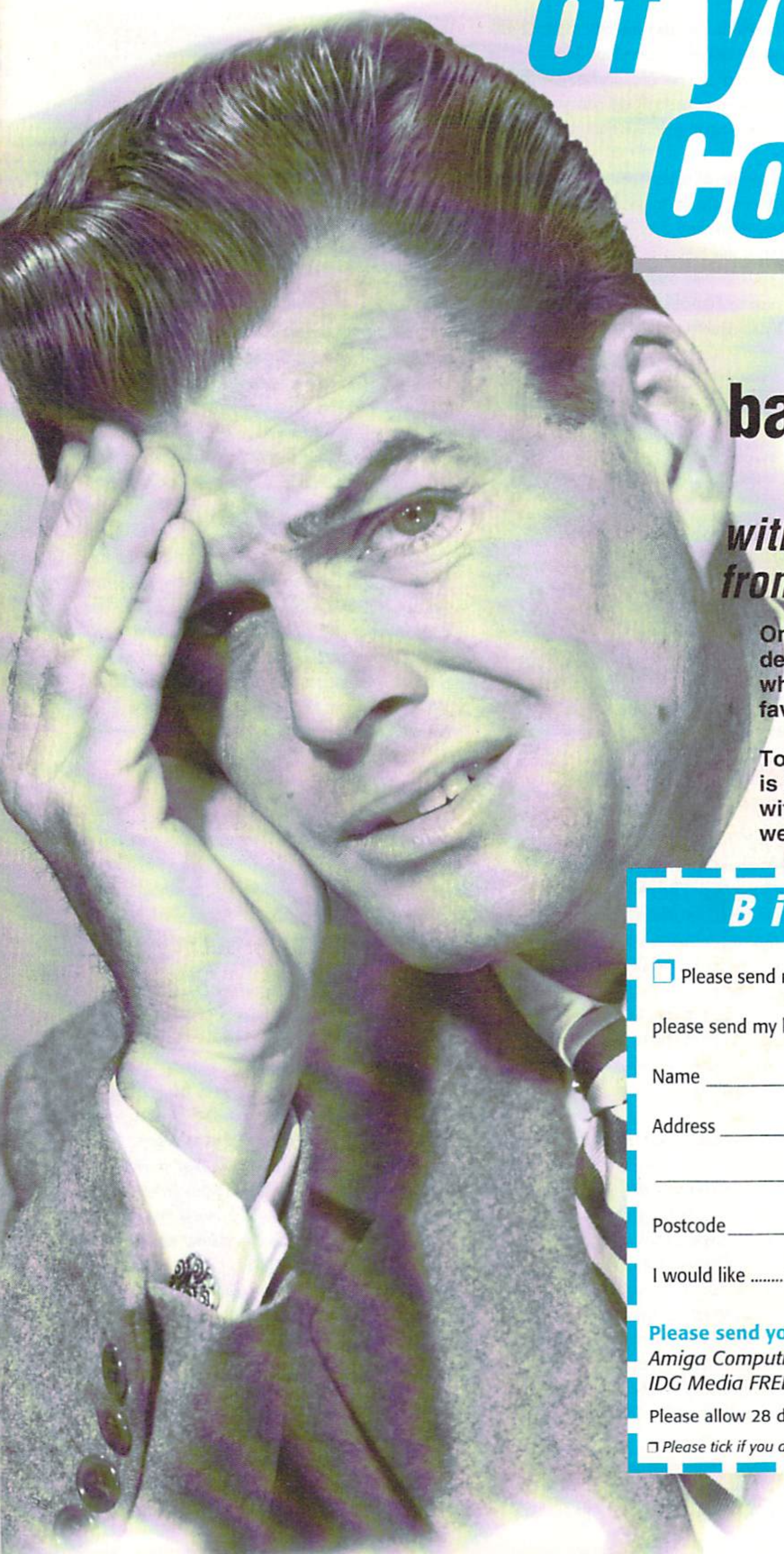
The following three Let commands set certain variables we will rely on later. Selected holds the amount of WBStartup programs actually selected. The variable ss holds 0 if the User-Startup gadget is un-selected and 1 if it is selected. That way, we can check this variable to see whether or not the User-Startup file in the S directory should be disabled.

The final variable is very important. It seems that Commodore caused a problem when it designed Workbench 2.0 because it put aside 50 gadget ids for the system. This was fixed with Workbench 3.0 but it means that if you want to have GadTools interfaces that work on Workbench 2.0, you must not use gadget ids 1 to 50 because they will clash with the system ids. The variable gadgetid is set to 50 and added to the GadTools ids to push them over the 50 mark. You could, of course, simply start your GadgetIds from 50.

In next month's article we will find out how to read the contents of the WBStartup drawer as well as creating the interface.

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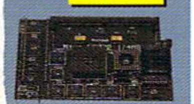
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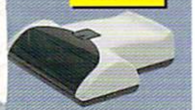
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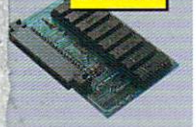
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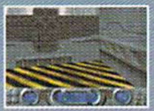
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BT Approved

Introducing the brand-new Enterprise 288 modem from HiSoft. This V34, 28.8Kbps fax modem is your perfect companion for super-fast access to bulletin boards, sharing information with your friends and colleagues or exploring the mind-blowing power of the Internet. Whatever your needs, the Enterprise 288 will meet them and, together with Surf Squirrel, often exceed them.



£169 modem only

The Enterprise 288 modem can be used on any Amiga computer. To see it really fly, plug the modem into the amazing Surf Squirrel interface for the A1200 and you will see reliable transfer speeds of up to 115,200 bps, saving you time and, of course, money.

Picture shows: Enterprise 288 modem (£169), Jaz drive (£529) and Surf Squirrel (£99.95)

NET&WEB

The Internet… Easy as 123

1 EASY TO INSTALL

Installing Net&Web couldn't be simpler, just enter your login name, password and Internet Service Provider then sit back and let Net&Web do the rest. Within a few minutes you'll be surfing the Web with IBrowse, sending email to your friends and downloading the latest demos.

2 EASY TO CONNECT

Net&Web is compatible with a wide range of Internet Service Providers (ISPs), including Demon Internet, The Net, CIX and many others. Just choose your ISP from our installation list and Net&Web will set up your Amiga to connect at their local point-of-presence.*

3 EASY TO USE

Surfing with Net&Web is so easy; the super-slick IBrowse (available separately) makes cruising the information superhighway as simple as clicking a button. Also included in the Net&Web pack is the powerful MetaTool email program and the DaFTP program for file transfer.

* Note that, for now, we use the slip protocol and AmiTCP because this is far less expensive than the current alternatives. However, all Net&Web owners will be able to upgrade to the brilliant, new TermiteTCP (which supports ppp) at a reduced price.

HOT NEWS! HOT NEWS! HOT NEWS! HOT NEWS!

All Net&Web Packs now include a choice of two great connection deals:

- *one months' free trial with Demon Internet, the UK's largest service provider, or*
- *free connection plus one month free with The Net (arranged by HiSoft & Frontier Communications, subject to a minimum 3 months' connection)*

Net&Web software from HiSoft - making the Internet as easy as 1, 2, 3 …

Enterprise 288 Specifications

Data Format: Serial, binary, asynchronous, 7 or 8 data bits. Parity: odd, even, none.

DTE Interface Speeds: 300, 600, 1200, 2400, 4800, 9600, 19200, 1200/75, 38400, 57600, 115200.

Operating Modes: Manual/Auto originate, Manual/Auto answer, Manual/Auto dial.

Dialling: Touch-tone or rotary/pulse.

Communication Mode: Full and half duplex transfer modes on two-wire switched telephone channels.

Fax Interface: Class 1 & 2.

Telephone Line: 600-ohm, balanced dial-up interface meeting BT specifications. One BS6312 type plug. REN 1.0.

Serial Interface: 25-pin RS232/V.24 interface with female DB-25 connector. Supplied with 25-way modem cable.

Power Supply: Plug-top 240VAC, 50Hz, supplying 9Vac @ 700ma.

Other: BT approved, CE compliant. Visual monitor of all major functions plus in-built speaker. Supplied with manual and warranty card (1 year).

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Net&Web Pack	**£39.95**
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Squirrel Surf 288 Pack *includes Enterprise 288 modem, Net&Web and Surf Squirrel*	**£289**

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The IBrowse web browser supplied with Net&Web

ROBO GORILLA!



Amiga computers are being used to provide the Gorilla House at Belfast Zoological gardens with an interactive facility. Arcom Limited, the Northern Ireland Multimedia production company, has installed an A4000 with Scala Mpeg card and MM400 software which, according to Russell Moore of Arcom: "...would show different video clips depending on the choice of the visitor."

The content of the Interactive Kiosk was designed, produced and edited by Arcom's Chris Astles and contains material donated by the Diane Fossey Trust. "Video editing was done on our Broadcaster Elite and the 3-D graphics with LightWave, of course" said Chris. "Scala was, as usual, extremely helpful throughout."

The Interactive Kiosk has proved to be very popular with the public and Arcom has attracted interest from other museums and zoo's in Ireland.

Anyone interested in contacting Arcom should telephone or fax (012477) 71445.

VIRTUAL PASSPORT DEBUT

June 16 saw the debut of the CompuServe 'Virtual Passport', a technological innovation that will enable CompuServe to deploy its fee-based services using Internet technology. The Virtual Passport will also allow other sites to identify CompuServe members, allowing them to use just one password, such as their CompuServe password, to gain access to many Internet sites.

Virtual Passport will also enable Web sites to check who is visiting and will verify the authenticity of the Web site for the user, which means that the site being accessed will check it isn't a 'copy-cat' or 'spoofed' site. Another advantage of the new system is that it will enable small businesses to set up a secure Web site that can only be accessed by approved authenticated users.

The Virtual Passport uses Remote Passphrase Authentication (RPA), a new technology developed by CompuServe. It is the first technology system in the marketplace that allows users to use an existing membership and password, such as a CompuServe account, to gain access and privileges with other Web sites.

The Virtual Passport will work automatically with CompuServe 3.0 which will be available this summer. For more information contact the Compuserve site at http://www.compuserve.com/rpa/index.htm.

INTERNET CUSTOM CARD SERVICE LAUNCHED

Cybercard, a young Cambridge-based company, has developed a radical new retail idea for the Internet which has left its California rivals standing.

After a year of extensive market research and product development, Cybercard officially launched its Personalised Greetings Card Shop on the Internet. The Cybercard product enables consumers to design personalised greetings card on their home computer via the Internet and then have them professionally printed to order on quality card using digital offset colour.

Cybercard lets you select the occasion and offers the choice of over 180 pictures and 700 texts in a variety of styles. If none of these are to your liking, you can write your own. You are credited as the designer on the back of the card unless you wish to remain anonymous. After designing the cover of the card you can either leave the inside blank or select appropriate poems or greetings. You even have the choice of having your signature simulated and printed onto the card which is then sent directly to the recipient.

Cybercard charges £1.99 (plus postage) for the Standard Card, and £2.99 for cards with a message printed inside (this involves a second run through the presses). The top-of-the-range Deluxe Card with the simulated signature and the option of sending directly to the recipient costs £3.25 (plus postage).

Cybercard can be visited on the Internet at http://www.cybercard.co.uk/. If you want to hear more about Cybercard, contact David Bridge on 01223 779 440.



Look everybody, Gareth (ex Amigaphile) got a First from Cambridge... it could happen!

KNOWLEDGE IS POWER

The Right Honourable Gillian Shephard, Secretary of State for Education and Employment, announced the launch of The Knowledge Gallery in May. 'The Knowledge Gallery' is a collaboration between education and industry to provide high quality images to universities and colleges over the SuperJANET network. This partnership between the public and private sectors was initiated by Smart Isles, a none profit making company dedicated to developing national applications to exploit leading edge technologies such as SuperJANET.

Mrs Shephard was suitably impressed by a demonstration designed to show the range and quality of the material that can be transmitted over the SuperJANET broad band network. She said: "The Knowledge Gallery is an exciting example of how the public and private sectors can work together to mutual advantage. I am delighted to welcome its launch. UK higher education institutions already lead the way in exploring the educational potential of broadband networks. This partnership has created a unique resource which will significantly enhance the range and quality of teaching and learning materials available to higher education."

The SuperJANET broadband network enables material donated by university, colleges and companies (such as video, sound, text, pictures and data), which is then digitised and made available through a gateway to SuperJANET, in The Knowledge Gallery. This material will then be freely available to the 130 universities and colleges in the UK connected to the system for use in their teaching and research programmes. This resource will also be available to schools connected to a broadband network

Mr Bahram Bekhradnia, Director of Policy at the Higher Education Funding Council for England, and a member of the Joint Information Systems Committee which manages SuperJANET for the higher education funding councils said: "I am delighted that major companies like Kodak and Sun Microsystems are supporting The Knowledge Gallery. It is an excellent example of a mutually beneficial partnership between industry and higher education".

SALES GROWTH

ViewSonic Europe announced last month that it had experienced a 200 per cent increase in sales during the last quarter of 1995 and the first quarter of 1996. This significant growth in ViewSonic sales during the last six months is believed to be the result of a number of innovative changes that ViewSonic has made to its European operations. One in particular has been the increased support from respected distributors, allowing ViewSonic to command an extensive distribution channel spanning most of Europe and Scandinavia.

Other factors in ViewSonic's 200 per cent increase in sales have been the organisational restructure which has enabled a closer relationship with end users to be established and a high profile advertising campaign in the press in Germany, France and the UK.

According to Michael Kommer, ViewSonic Europe's Managing Director, the company is striving to emulate the success of ViewSonic's American branch and take over the position of number one monitor supplier in Europe. "This unrivalled growth in sales of our price performance monitors is pivotal to our long-term strategy and this continues to be an exciting time for all of us at ViewSonic" he added.



AVERY REDESIGNS

Avery Office Accessories, part of the Avery Dennison Corporation, has revealed its new redesigned range of computer furniture which includes computer and printer stands and VDU trolleys. The new range is softer and more elegant, combining strength and stability with a lightweight design that enables the furniture to be moved easily and safely.

According to Jan Perry, Marketing Communications Manager: "The new design reflects the increased emphasis on design and appearance in the office of today. Crucially, though, it incorporates a high degree of flexibility, ensuring it will remain compatible with the fast developing demands of office technology."

PRINTER PRICE DROP

Star Micronics, desktop printer manufacturer, has announced that it has reduced the price of six its most popular printers. This includes three of its dot matrix models which are now available for less than £100 RRP. For example, it is offering the monochrome dot matrix model LC-90 for £83 and its LC-240 for £99. The LC-100 and LC-240C colour printers have also been reduced to £99 and £115 respectively. The thermal colour printer SJ-144, has been reduced to £180 RRP.

The new prices will include the 12-month, 'next day exchange warranty' which Star Micronics introduced three months ago. Marketing Manager, Annette Tarlton, commented: "With three printers now available for less than £100, Star is once again opening new markets in low-cost printers. It has always been our policy to offer users more printer for their money."



Star Micronics has slashed the price of its range of printers

NEW EPSON WARRANTY PROGRAMME

Epson has announced a new extended warranty programme that offers on-site repairs for all Epson printers, scanners and projectors.

The programme, called Epson Cover Plus, offers to repair the machine on site rather than replacing it with another refurbished unit, which would have no details of the age or previous usage of the replacement machine.

The new programme offers two types of cover – the Standard Service which guarantees on-site response within eight working hours, and a four hour Premium service for business critical machines such as high-end lasers, data processing dot matrix printers and multimedia projectors.

Robert Clark, Epson group product manager for business products said: "We have listened to our customers and are confident that Cover Plus provides the right level of cover options for all products in our extensive range. We realise that customers do not want to be left with a refurbished machine that could be older and more worn out than their own. Customers want their machine repaired on site by a qualified Epson engineer using original Epson parts."

Cover Plus can be bought from dealers up to 30 days after the purchase date of the product it is to cover. If the machine is sold the warranty can be transferred to its new owner. Prices start at £40 for a three year, eight hour warranty for, for example, on Stylus Color IIs.

THE RIGHT CONNECTION

Have you got a modem? Want to connect to the Internet? Well, what better way to get started than to take advantage of our reader offer with Firstnet who is offering our readers a free two-week trial.

Firstnet Services is a specialist when it comes to connecting your Amiga to the Net. It has over eight years Amiga experience with Amiga computers and provides expert technical support and software for the machine.

It offers full Internet access plus up to a megabyte of Web space free, provided it is used for non-commercial purposes. Dialups are available from as little as £12.50 per month + VAT for unlimited access.

Firstnet also offers Web authoring, training and fast 28.8 connections and in July it is having an Amiga dedicated Web page where you can have a link to your very own home page. Call Firstnet on 0113 294 4224 to find out how to download your Internet software from its Bulletin Board.

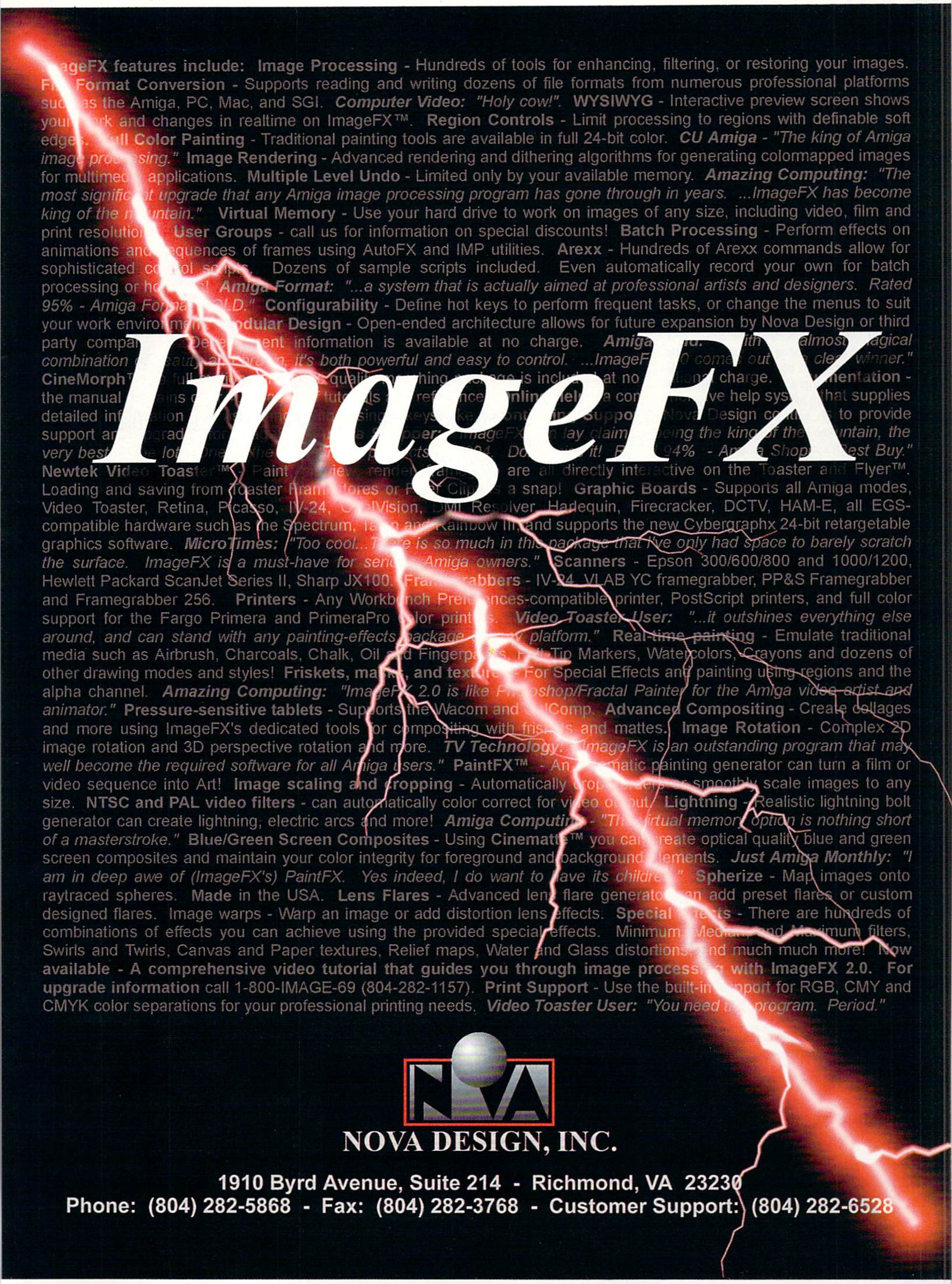


Get a free two-week trial with Firstnet

COMPLETE CHAOS

Last month in System, we published a review of Chaos Engine 2 which was unfinished. We don't pride ourselves on doing such a thing, it was just a complete misunderstanding.

We must apologise sincerely to Time Warner Interactive and the Bitmap Brothers themselves for any inconvenience and hope they can forgive us for all the confusion we caused. Sorry.


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it's both powerful and easy to control. ...ImageF winner."
ImageFX
Newtek Video Toaster are all directly interactive on the Toaster and Flyer™.
Loading and saving from a snap! Graphic Boards - Supports all Amiga modes,
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compatible hardware such as the Spectrum, and supports the new Cybergraphx 24-bit retargetable
graphics software. MicroTimes: "Too cool... package that I've only had space to barely scratch
the surface. ImageFX is a must-have for Amiga owners." Scanners - Epson 300/600/800 and 1000/1200,
Hewlett Packard ScanJet Series II, Sharp JX100, - IV-24, VLAB YC framegrabber, PP&S Framegrabber
and Framegrabber 256. Printers - Any Workbench Preferences-compatible printer, PostScript printers, and full color
support for the Fargo Primera and PrimeraPro color printers. Video Toaster User: "...it outshines everything else
around, and can stand with any painting-effects package platform." Real-time painting - Emulate traditional
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Satan's *den of* iniquity

The Internet is **EVIL**, if you believe everything you read in the tabloids...

Where does all the world's evil come from? Well, it depends which bandwagon is currently being jumped on. When home videos became commonplace it was that which struck fear into parents' minds, fearing that their children would be corrupted. Next it was the turn of video games which were cited as creating blood lust in even the most placid – turning them into axe murderers at the turn of midnight.

Now though, it is the turn of the Internet. It's fairly new and it's just starting to become widely used. With this comes the fear of the unknown. The media, feeding on these fears, scream front page headlines which blame the Internet for everything. It seems, if you believe them, that the Internet is inhabited by the Ghengis Khans of the '90s who will make you download pornography, turn you into cyber-terrorists and steel your hard-earned cash in the blink of an eyelid.

True enough, just like in real life, the World Wide Web has its fair share of nutters, but to say it's overrun is somewhat of an exaggeration. Yes, it's had terrorists online (the American Unabomber for one), and there was a case of children downloading instructions off the Internet to make fireworks which resulted in one child blowing his hand off. Sad though this outcome was, it would not have made front page headlines if it hadn't been for the Internet connection. Children will always be children and experimenting with fireworks is a part of growing up for naughty boys who should know better.

amiga comment

So the knee-jerk reaction would be to censor it all. This is to some extent what they tried to do in America with the Communications Decency Act. This made it a criminal offence to post 'indecent' material on to the Net, but the term 'indecent' was so vague it caused a storm of protest and many turned their Web pages black to demonstrate their objection. Who would decide what was indecent? Is nudity indecent? Is explicit language indecent? This is all down to personal opinion.

Fortunately, it didn't get to this stage because the courts ruled against it, saying the act was unconstitutional. But there is one predominant question that still remains to be answered. What should be allowed on to the Internet and who should see it? The Internet, used responsibly, can provide access to worldwide research on a vast wealth of subjects. It can entertain, inform and educate. Surely, something we'd want younger generations to be able to use?

However, what's wrong with consenting adults who want to see a few sexually explicit pictures? If people want to get online and talk about sexual matters, that is up to them. The vast majority of society doesn't want to download child porn, bestiality pictures or bomb-making instructions. They want to use it for what it is: an excellent communications tool that allows ordinary folk freedom of speech.

Okay, like television, there is some content we wouldn't want minors to see, but the solution seems fairly simple. Parental control, as always, is essential. Parents need to monitor and supervise what their children get up to. If this isn't possible and their children are so unruly as to not be trusted, there's always the power supply. But don't believe the hype – the Internet is not this dark cesspit of human depravity the media is shouting about. It does contain some bad elements but unlike the rotten apple, it doesn't spoil the rest of the barrel.

This isn't to say that nothing is required to help parents, teachers and the rest of us to make choices about the material we wish to access. Perhaps the new code of practice agreed to by the ISPA – the body governing access providers – will go some way to providing this. Among the proposals due for implementation is the PICS system which will rate sites according to their content – sexual or violent. At the end of the day, however, it will come down to parental responsibility. And, as America's failed censoring attempt proves, surely that is how it should be.

Tina Hackett

Tina Hackett
Editor

The *AC* team

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ART EDITOR	Tym Leckey
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EMail contacts:
Editorial edit@acomp.demon.co.uk
Advertising ads@acomp.demon.co.uk

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New Amiga's!! Exciting New Products!!

Blittersoft



Towers

Blittersoft are exclusive distributors for many leading product manufacturers. Our new deal with Eagle Computers ensures new Amiga models are available in the UK. We will also be looking to expand the product availability in the UK for all existing users.

We are, as ever, 100% behind the Amiga!

Guide For Tower Buying

When buying a Tower, you will need to consider two a Shuttle card and a PSU.

Generally, the standard Amiga PSU is not powerful enough to handle the additional expansion capabilities. Therefore, a 230W, 250W or 300W PSU is recommended.

You will also need to consider a Shuttle card, to offer additional expansion slots.

The A1200 is a straightforward choice, but A4000 owners have a choice of two. If you are considering PC compatibility, it is well worth choosing the PCI Shuttle. You will then be able to fit a Pentium card.

Also worth noting is that A1200 owners can purchase the Eagle 4000TE and fit their existing A1200 accelerator by adding our special adaptor.

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We can also supply PC Keyboard adaptors and Keyboards for your Tower system (A1200 and A4000)

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- 3 x PC PCI Slots
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- 3 x PC ISA Slots
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Shuttle 4000 PCI £189.95

Shuttle 4000

When fitted in one of our Towers, the Shuttle 4000 expands the desktop A4000 with further Zorro, Video and ISA slots. This Shuttle is ideal for those users who require the space of a Tower and extra Zorro board capabilities.

- 8 x Zorro III Slots
- 5 x DMA (Buster)
- 6 x PC ISA Slots
- 2 x Video Slots

Shuttle 4000 £159.95

Shuttle 1200

When fitted in one of our Towers, the Shuttle 1200 expands the A1200 with Zorro II, ISA slots and possible Video Slots (Upgrade). This is ideal for those users who have outgrown their A1200 system.

- 7 x Zorro II Slots
- 5 x PC ISA Slots
- 2 x Video Slots possible via upgrade.

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All our new Amiga's are built exclusively under a full Amiga Technologies OEM license under the "Amiga-Based" Trademark.

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Two great starter books free with any Eagle 4000TE or 1200TE! Buy separately for £6.00 Each

Siamese System

Integrate Amiga / PC/ Mac with our Shuttles, Pentium board, Emplant and Siamese!

The Siamese System is the means to allow different computer platforms to integrate neatly. At last, an integrated Amiga, PC and Mac system is possible!
- Single Monitor automatically switches between PC and Amiga Screen.
- Single Keyboard and Mouse operation across all platforms.
- Built in Serial networking with all PC drives mounted on Amiga.
- Siamese uses high speed SCSI network with suitable SCSI interfaces.
- Read and Write on any PC Drive at high speed, including Networked Drives.
- Text Clipboard, Cut and Paste between Amiga and PC applications.
- Full Arexx support built in.
- Use Video Recording cards, PC Ethernet Cards, PC SVGA monitor with AGA Amiga's and PC Scanners with programs like PhotoGenics
- Share Printers, all Amiga output sent to PC printer.
- Use PC runtime versions of 3D programs on a Pentium and watch 'em Fly.
- Allows Amiga access to Low cost PC products eg. 16 bit Sound Card with Wave Synth chip.
- Amiga MCI controller from AmigaDos or Arexx, (Media Control Interface) i.e. Digital Mpeg Video, Sound, Midi etc.

Siamese System £149.95

Pentium Boards

Our PCI Pentium Board is a complete modern Pentium PC system. The board is used in conjunction with our PCO Shuttles. This means that our towers can offer a complete multi-platform solution (Amiga, PC and Mac) via this board, Emplant and the Siamese control system.
- 256Kb Cache (Expandable to 1Mb)
- 2 x Serial Ports
- 1 x Parallel Port
- Floppy and HDD Controller
- Keyboard socket
- External Power Connector
- PC104 Expansion Port
- 128Mb RAM capability.
- Accepts Pentium Processor at 75, 90, 100, 120, 133 and 150MHz.

Pentium PCI Board £399.95

CD ROMs

Utilities Experience is a superb CD crammed with all the best in Amiga Utilities. The CD features a smart MagicWB interface with custom ray-traced icons. Programs are virtually 100% ready-to-run directly from the CD without the need to copy or install to Hard Drive. Highlights include HTML (WWW Internet) pages (with a special version of AWeb) and commercial demos of the Amiga's top programs. 100% indexed with easy to find program structure, sorted into directories with appropriate icons. £14.95

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NetConnect	£ 49.95
NetConnect with any full Eagle 4000TE or 1200TE	£ 39.95



Keyboard

We can provide a range of Keyboard adaptors to allow the use of any PC keyboard with the Amiga. This is particularly useful with Tower upgrades for the A1200, but can also be used to fit the latest Keyboards such as the Natural keyboards.

A4000 PC Keyboard adaptor	£34.95
A1200 PC Keyboard adaptor	£49.95

PC Keyboards

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Additional 4Mb RAM	£ 49.95
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4 X CD ROM drive (IDE)	£ 69.95
6 X CD ROM drive (IDE)	£ 99.95
8 X CD ROM drive (IDE)	£189.95
10X CD ROM drive (IDE)	£239.95

Emplant Deluxe

The Emplant Deluxe card is now available at a greatly reduced price. The card is a Zorro card, suitable for any Amiga with Zorro slots and 68020 or better CPU.

The hardware offers a dedicated SCSI interface for the Mac, ideal for adding CD-ROM, SyQuest, Zip, Scanners etc. to give the ability to format media in real Mac format (to go to a bureau) or to Scan directly into an Art package.

Real Apple peripherals can also be added (printers, modems) and



AppleTalk networking can be used with real Macs.

The hardware also assists emulation speed, especially when multi-tasking with Amiga applications.

Additionally, the hardware can be upgraded to use the Mac Pro module (Virtual memory, Ethernet, ...) and the e586DX PC software emulation.

Emplant Deluxe	£199.95
e586DX/SX PC	£ 49.95
Emplant Mac Pro	£ 29.95

All Mac emulations require additional ROMs

Software

AsimCDFS 3.5	£ 49.95

Full CD package, with FileSystem, CD32 emulation, Fish CD and now ATAPI HD/CD support!

MasterISO	£129.95
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The only Amiga CD-Writing software

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Easy to use multimedia authoring system, with CD of source material.

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Ultimate scenery generating software

DblScan 4000

DblScan 4000 intelligently upgrades all PAL/NTSC screenmodes so that they can be displayed on a regular VGA/SVGA/MultiScan monitor. The result is completely compatible with all programs. Provides full 24-bit output, so no information is lost. Screenmodes that do not require upgrading pass through untouched. Reduces flicker on interlace screens. Requires an A4000 or 100% compatible) video slot. Can be used with a pass-through graphics card.

DblScan 4000 £149.95

Emplant 1200

Emplant 1200 is a software only version of the famous Mac emulation, specifically designed for the A1200 or CD32 (with SX-1 or SX-32 module)



- Use of 256K, 512K and 1Mb MAC ROMs.
- Supports 2, 4, 16, 256, thousands, and millions colour modes.
- New super-fast Graffiti graphics driver, for 2, 4, 16, 256 colour modes.
- Workbench Video driver, up to 256 colours in a window!
- Supports CD-ROM drives, hard drive partitions, hard files and ram disks.
- Supports serial and parallel using Amiga ports.
- Supports AMAX, EMPLANT, MAC high density, PC 720K & PC high density disks.
- Supports stereo audio.
- Supports Akiko when used with CD-32 with an SX-1 or SX-32 module.
- Supports 020 through 060 processors and 68881/2.
- OS2.x style guide compliant interface on public screen.

Emplant 1200 £ 49.95

Village Tronic

Picasso II+ is a new improved design based on the best selling Picasso II graphics card. This improved design retains all the compatibility and features of the old card, with additional performance and features. The improved design offers faster Zorro II bus support, Vertical blank interrupt for smooth double buffering, Pablo brightness control, Higher Blitter speed (up to 30Mb/Sec), Support for DPMS power save monitors and now includes ImageFX V1.5. Compatible with all Zorro II/III based Amiga computers.

Picasso II+ 2Mb	£249.95
Pablo Video Encoder	£ 99.95
CyberGraphX Software	£ 34.95
Ariadne	£199.95
Liana 1.6m cable	£ 59.95
Liana 5.0m cable	£ 69.95
AmiTCP	£ 69.95
OS3.1 A500/600/1500/2000	£ 89.95
OS3.1 A1200/3000/4000	£ 99.95
MainActor Pro	£ 59.95
MainActor Broadcast	£179.95
MainActor Broadcast (Upgrade from Pro)	£129.95

VILLAGE® TRONIC

Mac Lite

Mac Lite is a software only version of the famous Mac emulation, which will run on any Amiga with a 68020 or better CPU.

Mac Lite offers all the features of Emplant 1200, but has additional extensive graphics card support for Picasso II+, CyberGraphX, Graffiti, Piccolo-SD64, Retina etc.

Mac Lite £ 69.95

Graffiti



- Easy RGB connection (needs 15Khz)
- Chunky GFX for fast animation and texture mapping
- More CHIP RAM for image
- Passes through the standard Amiga Video without restrictions when not in use.
- AVI video player

Software supported
- Emplant Mac drivers for fast video!
- IFF/GIF/JPEG viewers
- Texture mapped games (NomadV and Trapped)

Graffiti £ 69.95

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Dataflyer SCSI + A4000 — 119
- Converts IDE Header into SCSI support for SCSI devices w/ pass thru to work with original IDE drives you already own!

Dataflyer SCSI + A1200 — 99
- Same thing for the A1200 series systems

Dataflyer XDS 1200 / 600 — 69
- External case supports 3.5" IDE hard drives & allows use of original 2.5" hard drive. Connector also uses power from inside the machine.

Ramboard w/2MB Ram exp to 8MB — 199

Dataflyer 2000 SCSI — 95
- Supports up to seven scsi devices , internally mount a 3.5" hard disk drive onto controller card

Dataflyer 2000 IDE — 95
- Support two IDE devices, one can be mounted onto controller card.

Dataflyer 2000 SCSI & IDE — 125
- Two controllers in one card! Support seven SCSI and two IDE devices!

Dataflyer 500 SCSI — 149
- Supports Seven SCSI devices , one can be mounted internally and powered!

Dataflyer 500 IDE — 149
- Supports two IDE devices , one can be mounted internally and powered.

Dataflyer 500 SCSI & IDE — 179
- Supports two IDE devices , one can be mounted internally & seven scsi devices can be connected!

VILLAGETRONIC

MainActor Professional — 79
- Full featured animation program that works with all Amigas with support for Picasso II owners.

Ariadne — 279
- Zorro II Ethernet card offering 10base-2 (cheapernet) & 10base-T (twisted pair) Features; 2 parallel ports 32k buffer; boot eprom option; SANA-2 Compatible drivers & Envoy network software; DOS 2.04 or higher required.

Liana Network — 89
- Connects any two Amigas togeather via the parallel port

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- A video module for your Picasso II card permitting output to your TV or VCR - Quality comparable to high performance video broadcast encoders; includes RCA - S-VHS - SCART cables & 24 bit animation program

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Memory Options - (Minimum of 8MB Fast Memory needed)

1x32 Simms 60ns 4MB	75
2x32 Simms 60ns 8MB	149
4x32 Simms 60ns 16MB (warp engine or extra ramboard)	299
8x32 Simms 60ns 32MB (warp engine or extra ramboard)	599

Newtek Video Toaster 4000	1995
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- 2.1 GB Quantum Atlas Video Drive	849
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- faster than an Amiga 4000T @ 25Mhz
- uses standard 72pin simms expandable to 128 MB of memory
- 33 MHZ & 40MHZ AVAILABLE! $849.00 & 949.00!!
- Extra SCSI Port Option Available
- Built In SCSI I & II HD Controller Card

Limited time price of $649.00

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Low profile, power, heat simms for maximum performance -

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Paravision 8-Up! w/2MB (2000)	149
Paravision 8-Up! w/4MB (2000)	229
Paravision 8-Up! w/6MB (2000)	309
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Amiga 2000 Accelerators

GVP 68040 @ 33mhz w/MMU, FPU SCSI Controller with Extra Serial, Parallel Ports & 4 MB Ram 60ns Expandable to 64MB ram using 16MB simms (799 each) — **1295**

CSA 68040 @ 33mhz w/MMU, FPU SCSI II controller card w/0MB. Uses 72 pin 60ns industry standard simms and is expandable to 64 mb using 16mb simm moduals. — **995**

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DKB

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Allows your A500 & A2000 series computers to have two megabytes of chip ram. A must have for people who use video, graphics and audio applications. Included is the Megachip daughterboard with 2MB Agnus chips with an extra one megabyte of ram. (Requires A500 to have A501 ram expander +49.95)

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A1000 owners can now add kickstart roms to their machines with this device! Supports two different revision roms & allows access to more system ram

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Accelerator for the A1200 computer system that allows you to speed your machine up to 600% faster. Includes capibility to add 128MB of fast ram using industry standard 72 pin simms & battery backed clock-calendar. Optional FPU can be added. Optional SCSI I & II Controller can be added +89.00

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The coverdisks



Get the on-line experience offline

Extracting CoverDisk files

Before you even think of putting the coverdisks anywhere near your computer you should make sure you write protect them by moving the black tab in the top corner of the disk, so you can see through the hole. Doing this makes sure you cannot damage your disks in anyway. There is no reason why the coverdisks need to be written to, so even if the computer asks you to write enable the disks, don't do it.

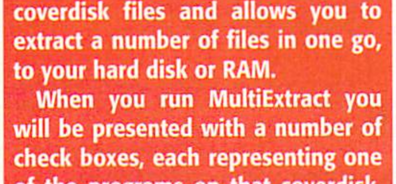
To extract any single archive, simply double-click its icon and follow the on-screen instructions. If you want to quickly extract the program to RAM, select the NOVICE level on the welcome screen and press proceed once on the current screen, and then again on the next. The program can then be found in your RAM disk. Normally most programs need further installing, so read the documents on how to do this.

Hard Drive users

Hard drive users do not have to boot with the first disk, but you must make sure you have the Amiga's *Installer* program in your C drawer. To make sure your hard drive has the correct files in place, double-click on the SetupHD icon. This will check if you have the Installer program and if not will copy it across – do not worry as it will not write over any existing files.

All you hard drive owners will find MultiExtract very useful. It is a separate method of extracting the coverdisk files and allows you to extract a number of files in one go, to your hard disk or RAM.

When you run MultiExtract you will be presented with a number of check boxes, each representing one of the programs on that coverdisk. Just de-select all the programs you do not want extracting and then press proceed. All the selected programs can now miraculously be found in the selected destination.



This is MultiExtract for all you sensible people with hard drives

Disk 1



Extracting iBrowse

Before you extract iBrowse off this month's coverdisk you need to make sure you have a couple of programs on your hard dive. As we have tried to squeeze as much as possible on the first coverdisk, you will find these files on the second coverdisk.

Double-click on the SetUpHD icon to copy across these files. If you still find you have problems you need to make sure the ***Lzx*** *and* ***Installer*** *programs are copied from the 'C' directory on the second disk into the 'C' directory on your hard drive.*

As long as you have both these files on your hard drive, you can double-click on the iBrowse.lzx icon and using the normal Amiga installer, choose where you want the iBrowse drawer placed. Once the archive has been extracted you just need to double-click the iBrowse icon and away you go. I would suggest you run iBrowse on its own screen, preferably either a high resolution interlaced screen or DblPAL and with at least 64 colours on screen to get the best out of it. You will have to set this through the MUI preferences.

iBrowse demo

Author: Omnipresence International
Workbench 3.0, hard drive



To run iBrowse you need to have Magic User Interface 3 or higher installed on your computer. MUI is available from any good PD house and without it you will not be able to run any MUI program

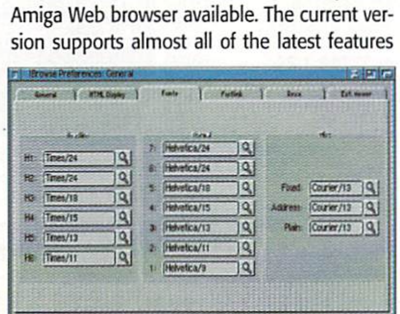
I am sure that if you are not linked to the Internet, you must be getting a little bored with all the talk of Web browsing, home pages and other Internet paraphernalia. For this month's *Amiga Computing* coverdisks we have decided to show you what you are missing with an exclusive look at our very own Web site, without the need to actually be online.

Our Amiga browser of choice currently is iBrowse which is the most feature-packed Amiga Web browser available. The current version supports almost all of the latest features that Netscape can do, such as correctly justified and positioned text and graphics, both progressively displayed GIF and Jpeg pictures, the new tables and, for this release, animated GIFs are now supported by the new image decoder. As iBrowse is still under development, it is hoped the final version will support everything that Netscape can do.

When you run iBrowse the *Amiga Computing* main index page will automatically load up. The first thing you should do is change iBrowse to run on its own screen, preferably a Hi-Res one, with at least 64 colours, and you do this using the MUI preferences.

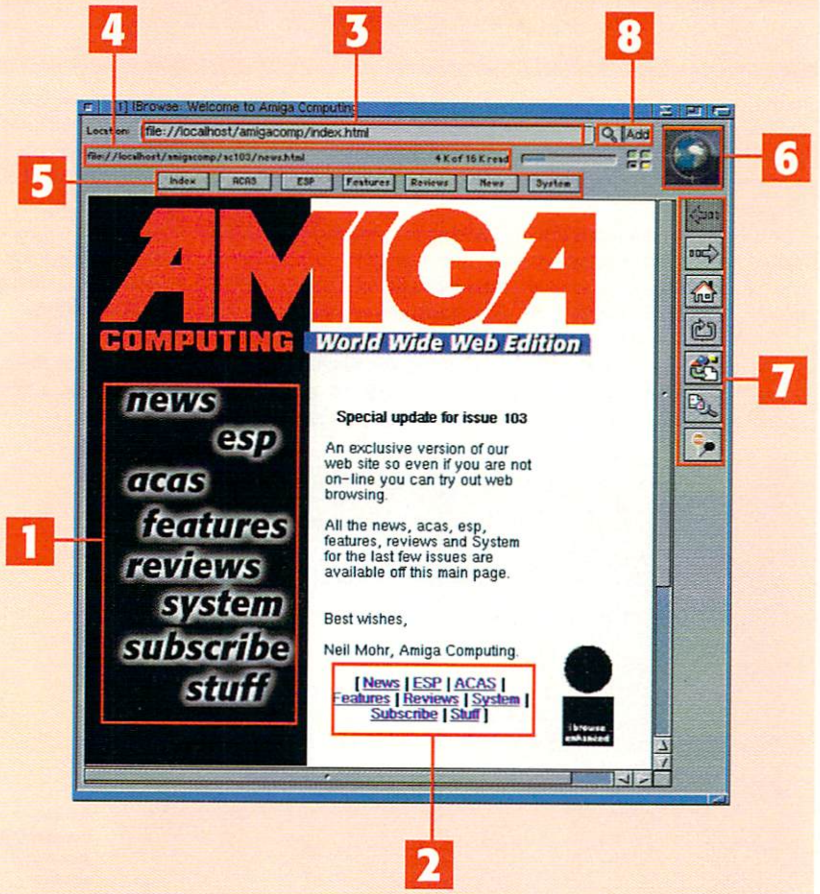
Web browsers are fairly easy to use and iBrowse is no exception, but due to the configurability of iBrowse it does have a lot of options hidden away in its numerous menus and extra requesters, so the best idea is just to try everything out. One thing that might take you by surprise is iBrowse's drag and drop interface. If you drag any part of the interface such as the transfer image to the edge of the iBrowse window, you can relocate it – not even Netscape can do that.

iBrowse is a commercial product available from HiSoft, so this demo has one main feature removed – TCP/IP disabled. Even though you will be able to browse Web pages on your hard drive, you cannot use it over the Internet because it cannot use the TCP/IP messages to fetch Web pages and graphics.



This is only one half of iBrowse's in-depth preference program

Anatomy of a web browser



1 ***Graphical buttons*** – *a good number of links on Web pages appear as graphics. On the Amiga computing index page all the glowing words down the left-hand side are links to other pages, as are the graphical buttons on the System page. If you turn off the graphics, Web browsing can be a lot faster and the graphics will be substituted by a box and text link.*

2 ***Text buttons*** – *the other type of links are text based. These will appear as highlighted, underlined text. These links are usually used to give the reader a quick reference to other Web pages that are relevant to the subject being discussed. Therefore, in the news the word Epson is highlighted as a link and would, if you were on-line, take you to the Epson home page.*

3 ***URL location*** – *this text gadget contains the current Web page address. As you are using iBrowse offline, all the addresses start with 'file://localhost/' which tells iBrowse you are reading the page of a disk. If you were actually on the Internet, all the Web pages start with 'http://'.*

4 ***Status bar*** – *this bar tells you the status of iBrowse. The main use is to show you where iBrowse is up to with downloading the current Web page. A lot of the time, getting graphics and the like can take a little time, but this bar tells you exactly how much there is to download and how much iBrowse has already done.*

5 ***Fastlink buttons*** – *if you use a page a lot then you can give yourself quicker access to it by making a fastlink button, letting you jump to a page with just a click of a mouse button. You define these through iBrowse's preferences.*

6 ***Transfer animation*** – *this is pretty useless really but it makes your Web browser a bit prettier to look at. Whenever pages are being loaded this little animation will play, again showing you that iBrowse is actually doing something.*

7 ***Navigation buttons*** – *these buttons give you a few extra functions when flicking through web pages. The first two let you skip backwards and forwards through previous Web pages. The house icon will jump you to the default home page, in this case the Amiga Computing main index. The next two are re-load page and load all images. The last button pops up a search window that lets you search for certain words in the current document. A stop button will also appear, but only when pages are being loaded, so you can interrupt the process.*

8 ***Bookmark gadget*** – *when you are regularly browsing through the Web you will come across certain pages that you will want to go back to on a regular basis. You can build up a list of bookmarks that you access from this popup button.*

DISK 2



ModePro v4.12

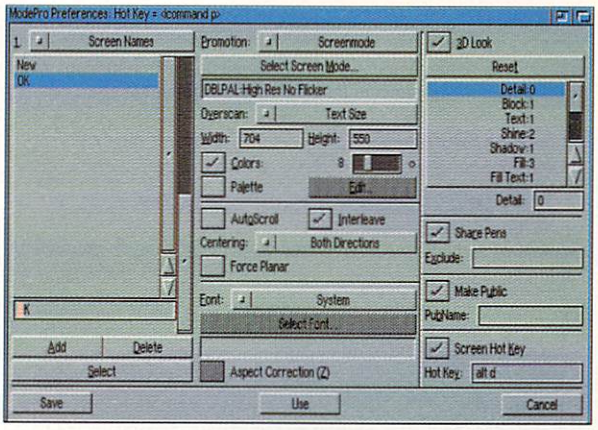
Author: Michael Rivers
Workbench 2.1

The Amiga's ability to have multiple screens in its operating system is one of the reasons that makes it far easier to use than any other. Instead of cluttering up your screen with lots of different programs and being forced to either shrink windows down, iconify windows or make the whole program disappear, the Amiga allows you to banish programs from the Workbench onto their own screen. This leads to a far more productive way of working because you do not have to worry about rearranging windows as you can just flick between screens.

With the advent of the AGA chipset and third-party graphic cards, the number of screen modes exploded and badly programmed, and older programs, did not allow you to take advantage of all the new features added to Workbench 3's new screen modes. ModePro gives you a way of forcing these programs to use the screen mode of your choice.

To set up ModePro you can use the provided installer – all you have to do is copy the program and preference program respectively to the WBStartUp drawer and preference drawer. Once the ModePro commodity has been started you can use the preference program to set ModePro how you like.

At first it may seem fairly complicated, but it is straightforward to use as it is just a matter of picking either the program, screen or mode name that you want to promote, and then select the screen mode you want to force the program to use. If you do have problems there is a good AmigaGuide manual provided.



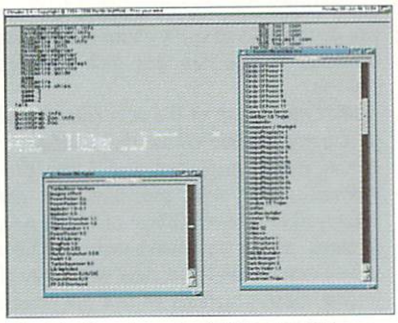
ModePro has got more than you need in a mode promotion program

Xtruder v2.4

Author: Martin Wulffeld
Workbench 2.04

As this month's feature is about protecting your Amiga from all manner of nasty ends, I thought it may be an idea to provide you with the latest virus checker for your Amiga. Xtruder is the most up-to-date virus killer around, now that Virus Checker has seemingly stopped being developed.

Xtruder uses external libraries to hold all the data about new viruses, so in the future you will only need to get hold of the filevirus and bootblock library files to be protected against the newest viruses. With its ability to check files inside Lzx and Lha files, viruses cannot hide in these archives. Xtruder takes advantage of all the latest features added to Workbench 2 and 3, so is very configurable and comes with an installer script to make your life as easy as possible.



It's latest and greatest virus checker



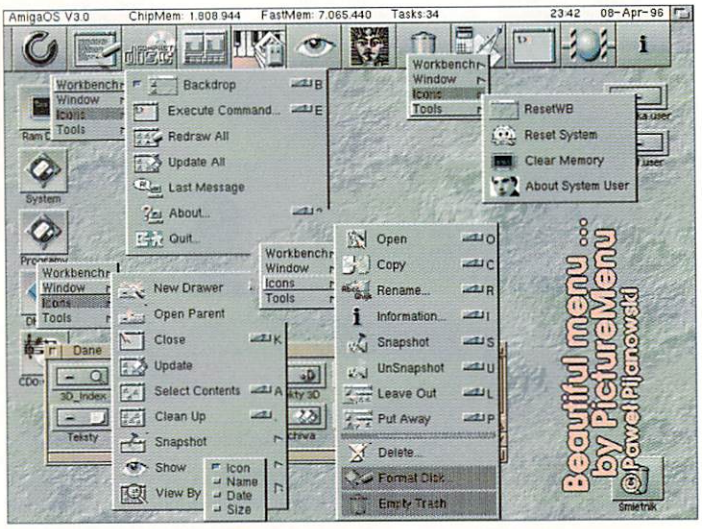
Picture Menu

Author: Pawel Pijanowski
Workbench 2.04

In this continuing *Amiga Computing* special of additions to make your Workbench look better than ever, we happily present Picture Menu. This small system 'extension' allows you to add icons to each top menu item, making your Workbench menus look that bit more modern. You do, however, need a Workbench screen that is at least 300 pixels in height, so use either an auto scroll or interlaced screen.

Installing Picture Menu is simple thanks to the provided installer script – every good program should have one. If, however, you are using a program such as Tool Manager or ToolsDeamon, you may want to add icons to any extra menu items you have added to the tools menu. To do this you need to edit the file *PicM_Workbench.prefs* which is stored in the ENVARC: directory.

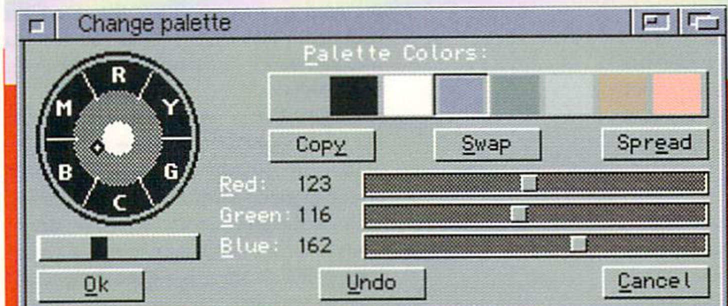
This is a text file that defines what icon should go with each menu item. If you go into this file, skip to the bottom of it and delete all the entries after ResetWB, you can then add your own menu items. Picture Menu stores the images in a font file, so, unfortunately, unless you have a font editor you cannot add or change the current images, but can reuse the existing ones.



Amiga Computing gives you another way of beautifying your Workbench

ReqTools v2.6 (v38.1413)

Authors: Nico Francois & Magnus Holmgren
Workbench 2.04



It seems as if ReqTools has been around since the beginning of time

Up until a couple of years ago, most users would not have been without this library. However, with the arrival of a decent version of the ASL library, the need for ReqTools has dropped a little, but there are still so many programs out there that use it that you really need a copy on your hard drive.

This release fixes a good number of bugs and adds a number of extra background functions such as a colour wheel in the palette requester, requester options having function keys assigned to them, *all* volumes will now be shown in file requesters, and requesters are rendered better on screens with odd colours, such as on a MultiView screen.

Update copy

Author: Sven Steiniger
Workbench 2.04

UpdateCopy is an extension of the standard copy command. It not only copies files and creates, if necessary, directories, but also processes already existing files, with older files being replaced automatically by newer ones. UpdateCopy will first try to find a version-string within the files and copy only files with a higher version, or it can simply compare the dates. UpdateCopy features multiple source files, pattern matching and recursive directory scanning.

No NewIcons

Author: Marcel Doering
Workbench 2.04

For anyone who knows about icons, they could find this utility very useful. NewIcons is a replacement system for the standard icon system, and provides a much better way of handling the way icons are displayed.

Basically, it makes your icons look much better because their colours are properly mapped to the current screen colours. This new icon data is stored as what appears to be a lot of garbage in the tool types of any icon that has a NewIcon attached to it.

The problem is, if you want to delete this NewIcon information, the only way you can normally do this is by a single icon at a time, using the KillNewIcon command – and this can take quite a while for a lot of icons.

The NoNewIcon program allows you to kill all the NewIcons in a whole directory that you can select using a normal direcotry requester.

To install it you will need to copy the library files to your Libs drawer and the KillNewIcon and the NoNewIcons.EXE files to your C directory.

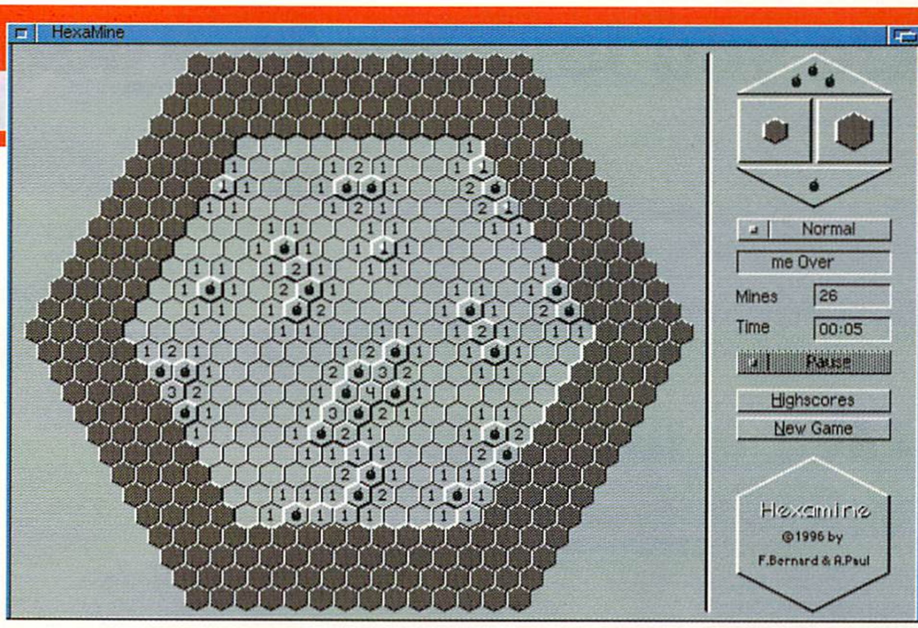
HexaMines

Authors: Frank Bernard & Andreas Paul
Workbench 2.04

This is a special dedication for our production editor who wastes many a lunchtime hour playing the game Mine Sweeper on her huge Mac with its 21 inch monitor. HexaMines is a similar type of game, but better.

If you have never played Mine Sweeper it is a deceptively easy game, whereby all you have to do is mark on a grid where you think the hidden mines are. When you click on a square a number will appear telling you how many of the adjacent squares have mines hidden under them. You have to systematically sweep across the grid, marking off all the mines.

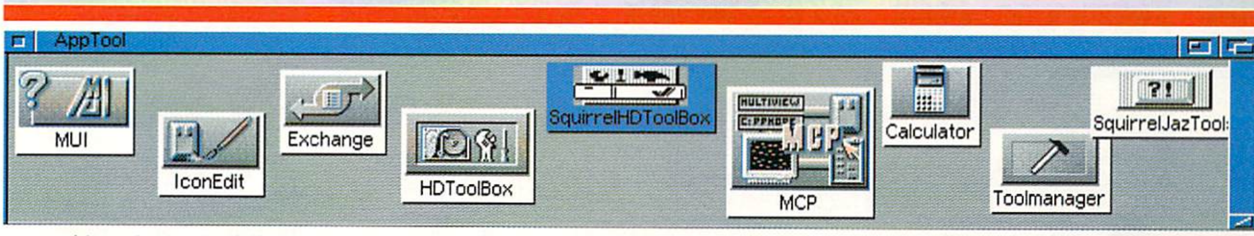
The old traditional mine sweeper-type of game is usually played on a square grid. HexaMines, on the other hand, takes the original game idea and places it on a hexagon-based grid, making it a much more challenging game. The only problem you may have is that you need a screen at least 400 lines in height.



If you are getting bored, HexaMines is very addictive

AppTool

Author: Bastian Frank
Workbench 2.04



A simple way of keeping programs easily at hand

AppTool is an interesting little tool, and when you first run it, all you get is a thin window at the bottom of your Workbench screen. This is an AmigaDOS Appwindow into which you can drop any file or program and AppTool will place, depending on how big the icon and Appwindow is, either the program icon or just the name of the program.

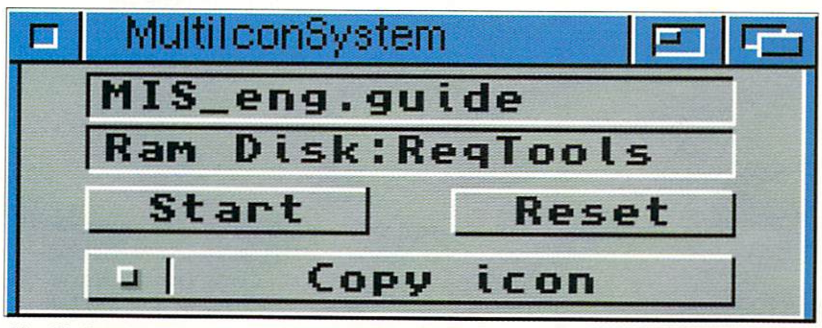
You can then resize and move the window wherever you like, and if you want to run the program at any time you can just double-click the icon in the Appwindow.

MIS

Author: John Kjellberg
Workbench 2.04

This is a tiny little program written to make handling icons that bit easier. The big problems that face Amiga users when trying to deal with icons is that as standard, there is no way to easily manipulate them through the Workbench. If you want to copy or delete an icon, you have to revert to using either the Shell or a DOpus-type utility, which is not the best way of going about things if you want the job doing quickly.

MIS has a small Appwindow into which you firstly drop the destination icon and then the source icon, and then copy its icon image, tool types or both at the same time. If you then hit the start button, the copy will take place. MIS can also delete an icon from a file and will also add 'def_' icons that are set up in the ENVARC directory for standard file types. MIS is a commodity, so you can have it running in the background and pop it to the front whenever you need it – you just have to set the hotkey in the icon tool types.



Simplify icon handling with MultiIconSystem

FontDT v1.3

Author: Michal Letowski
Workbench 3.0

Datatypes are handy things that were added to the Amiga's operating system, and even though the best has not yet been made of them, it has not stopped anyone from writing new Datatypes for all of us to take advantage of. This is the latest version of the Font Data Type and allows you to view fonts installed on your computer, and fixes a number of bugs and problems with earlier versions.

Faulty disks

If you should find your Amiga Computing CoverDisk damaged or faulty, please return it to:

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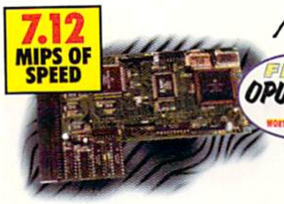
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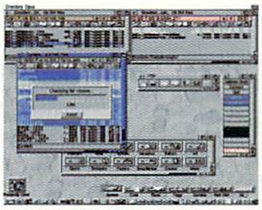
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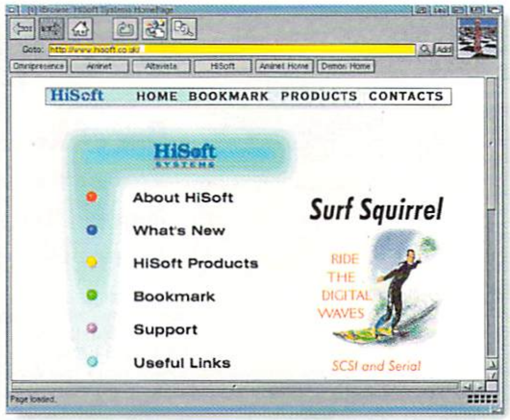
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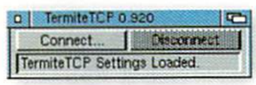
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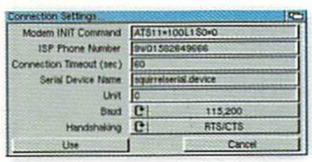
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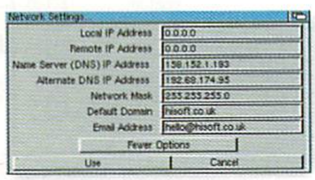
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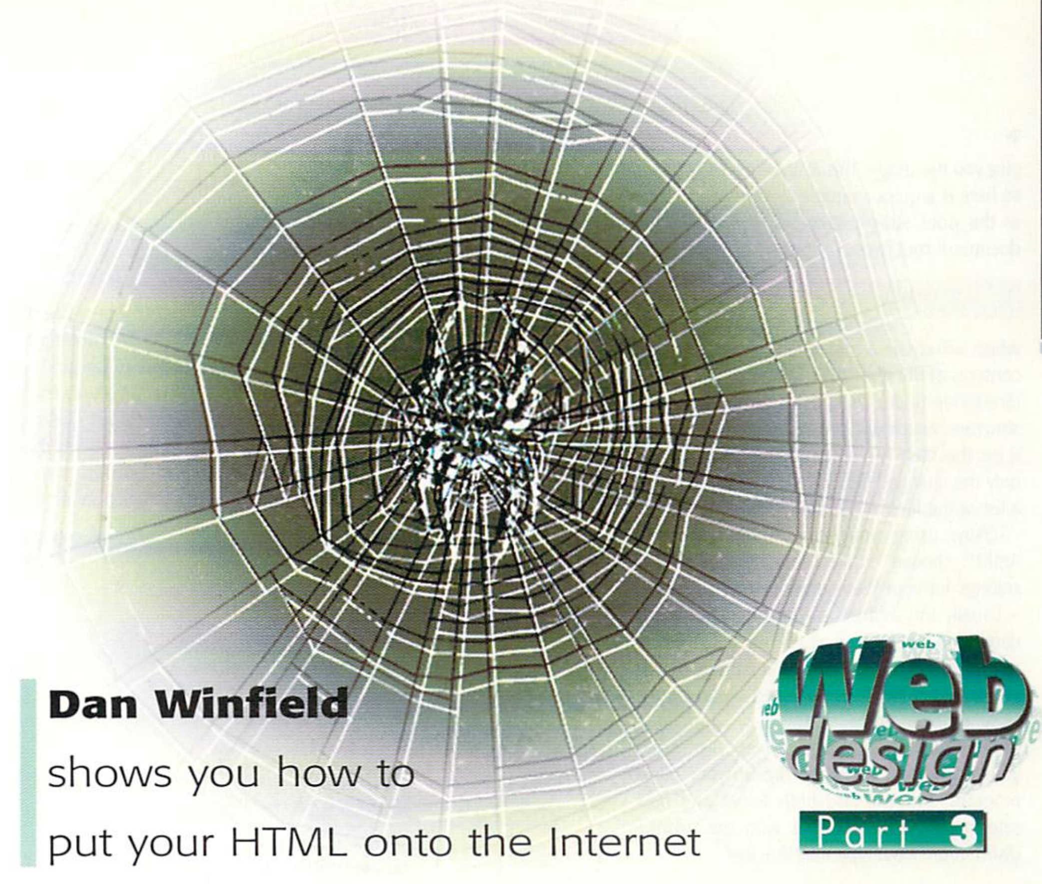
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Web design Part 3

Dan Winfield shows you how to put your HTML onto the Internet

Last month we looked at how easy it is to make simple Web pages using HTML. This month we take a little step-up and discover how to put our pages onto the Internet for all to admire. This isn't really that difficult, it just takes a little understanding of what you are trying to do and a touch of practice. All we are going to do is copy the files we have created into a directory on the Web server, but unfortunately this has to be done in several stages. You have to compress the files, transfer them via ftp to the host computer, telnet into the computer, uncompress and organise the files and, finally, check the pages using a Web browser. Phew! What a long copy procedure. If you are lost at this point then don't worry, I just wanted to put the procedure into one line so that you have a clear idea of what we are about to do.

Last time we explained about the need to organise your files, so if you know how they will be stored on the Web server then things will be a lot easier. You will almost always be given four directories in your home area on the server as follows:

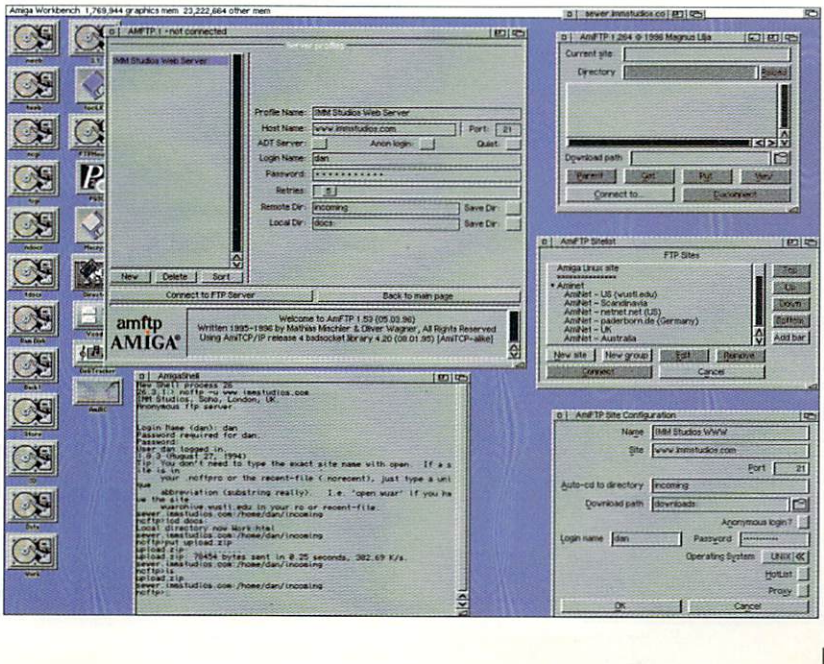
docs/cgi-bin/incoming/logs/ – the docs/directory is your document root. If you have a Web URL of *http://www.foo.co.uk /dan/* then putting *index.html* into the docs/directory will give you a URL of *http://www.foo.co.uk/dan/index.html*. The document root is a very important marker for you to remember, because knowing where it is will help you sort out any problems with broken links. A good way of working so that everything moves over to the Web server easily is to set an assign on your Amiga to mimic the document root on the Web server. Therefore, if your Web pages are all in the directory work:html on your hard disk then

```
>assign Webdocs: work:html
```

will make Webdocs: your document root.

The *cgi-bin/* is where you will store all your scripts (this will be covered in more detail over the next couple of months). The *incoming/* directory is the place you ftp all your files to before moving them to the *docs/* or *cgi-bin/*, and finally the *logs/* is where all your access logs for your pages will be kept.

Let's deal with *incoming/first*. You don't have to compress the files before ftp but it makes a lot of sense and is good Internet practice to do so. The compression codec to use is Zip, which is commonly used on Unix Web servers. On your Amiga you can use PKZip which will give you a GUI, or use Zip from the CLI. It's best to learn the CLI version because that is what you will use on the Web server. Fire up a shell on your Amiga and type 'Zip' to ➤



Whichever ftp client you use, the basic uploading is the same

WEB SPACE

Should you decide to get yourself some Web space, there are a few things you'll need to know about your account and a couple of checks to make.

- Make sure you write down your account details when given them, particularly the username and password.
- Check and see if you should use .htm or .html for your HTML file extensions.
- Also find out the address for ftp'ing and telnetting to for administering your account.
- Check that your account has a cgi-bin and that you are able to use it freely, In the coming months I will be covering how to use this to make your Web pages really stand out.
- Finally, ask if there is any on-line documentation that could be of help to you

give you the usage. This is often overwhelming, so here is a quick example to save you looking at the docs straight away. If you are in the document root, type:

```
12.Work:html>zip -r -b t: upload *
```

which will create a zipped file *upload.zip* of the contents of the directory *work:html* and all subdirectories under that. Using *-r* will keep the structure, which will be useful when you unzip it on the Web server. You can, of course, Zip only the changed files – just replace the * with a list of the files which have changed.

Okay, using your ftp program such as AmFTP, choose 'connect' and then fill in the settings for your Web server (see screen shot) – usually the address of the host, your username and password is all you need. Once connected, change directories to incoming on the server and put the compressed file(s) into it. Now we have uploaded the files, we need to install them on the Web server. Disconnect your ftp session and then fire up your telnet program. You will find both telnet and napsaterm programs available with the AmiTCP distribution. Now type into the shell:

```
12.Work>napsaterm www.foo.co.uk
```

You will connect and then have to enter your username and password. Unix uses slightly different syntaxes to an Amiga (see boxout), but the most important ones are, ls (to list a directory), cp (for copy), rm (for delete) and mv (for move). Also, unlike the Amiga you always need to type *cd* to change a directory. Using your newly acquired knowledge of Unix, you will need to change to the incoming directory:

```
>cd incoming
```

Now type *ls* and you will see the Zip file you have already uploaded. Your Web server document root is *docs/* so this is where you want to expand your Zip file to. Assuming the above directory structure, the line you will need to type is:

```
~/incoming>unzip upload.zip -d ../docs/
```

This will unzip all the files into the docs directory and will prompt you if any files will be written over. You can, of course, simply copy the uploaded file to any directory if you haven't zipped up the files or have only uploaded a few changed files. As you learn some of the Unix commands over time you should be able to do this, but I would use the Zip method for the first few attempts at least. While you are using telnet, have a look around your home area and familiarise yourself with what is there.

Assuming all went well you should have a Web site for all to see. The most important thing is to check the whole thing worked, so fire up your Web browser and have a look.

Some common problems to look out for

1. Broken images are a frequent problem, so check the path in your html is correct. <img src="/graphics/logo.gif"> points to a file logo.gif in the directory graphics. You would expect to find this directory in the docs directory as docs is the all-important document root. If it isn't there then that may well be your problem!

2. If you get a server error whilst browsing your site, or a permission error, this means you have the permissions set wrong for the files on the Unix system. Unix has a heirarchy of file permissions which I will mention more about next month. To fix this, telnet to your account and then type chmod 664 * in the offending directory. This will give read permission to Web users. Check your permissions with *ls -l* if you don't have 3r's then type the fix.

Remember that when you are uploading files and updating your site there may well be people looking at the site as it changes! This can be a problem, so next month we will look at ways of getting around this.

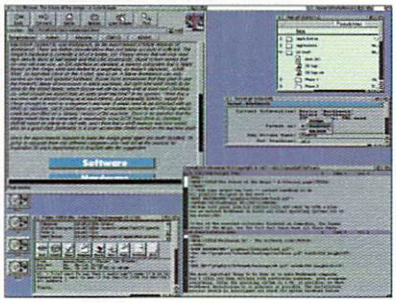
If you handled this uploading tutorial then you are well on your way to becoming a Web Master. Believe it or not there are Internet Consultants who don't know how to do this!

Next month we'll take a look at advanced HTML, tips and tricks on how to make a winning Web site with our Amiga.

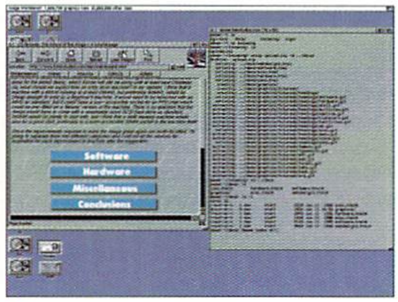
USEFUL COMMANDS

Here are some useful Unix commands to know when administering your site.

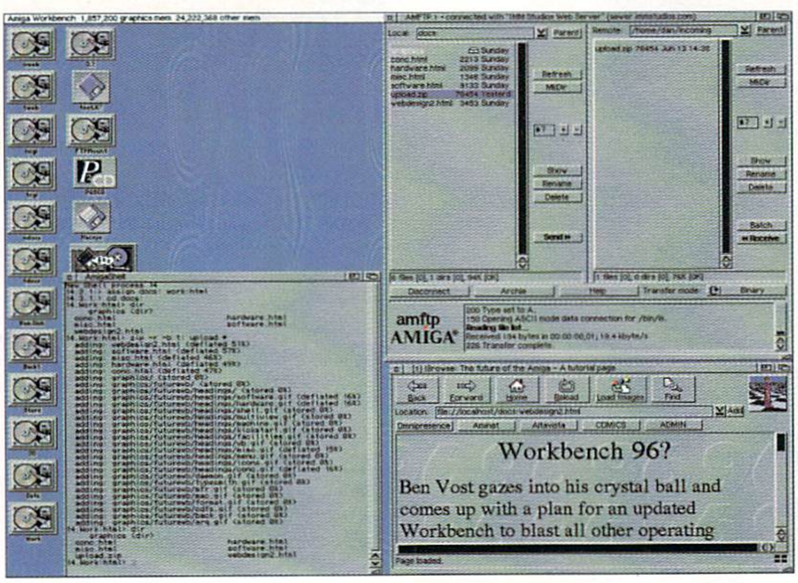
- **To go back a directory** - cd ../
- **To list a directory** _ ls or ls -l
- **To copy the file thisfile.html into the directory subdocs** - cp thisfile.html subdocs/.
- **To move a file or rename by moving to same directory** mv thisfile.html subdocs/thatfile.html
- **To delete the file thisfile.html** - rm thisfile.html
- **To delete the directory subdocs and contents** - rm -r subdocs
- **To make the directory gifs** _ mkdir gifs
- Do be careful with the rm and mv commands and remember, people could be accessing the site when you make the accidental delete of an important file!



The Amiga is a perfect machine for maintaining a Web site



The final directory structure must be correct



Zip is an important command to learn, and saves uploading time

PROGRAMS

The Amiga has many FTP programs such as AmFTP, AmiFTP or ncftp, if you like using the shell.

- **ncftp** comes with the Amitcp distribution, while you can get **AmFTP153.lhais** on Aminet under **comm/tcp/ AmiFTP-1.264.lha**
- You will also have to get hold of a Zip utility, so try either comm/tcp **PKAZip.lha**, or **util/arc zip201x.lha** which can both be found on Aminet

CONTACT POINT

Dan Winfield can be contacted via e-mail at dan@immstudios.com or by his Web address at: http://dakota.immstudios.com/

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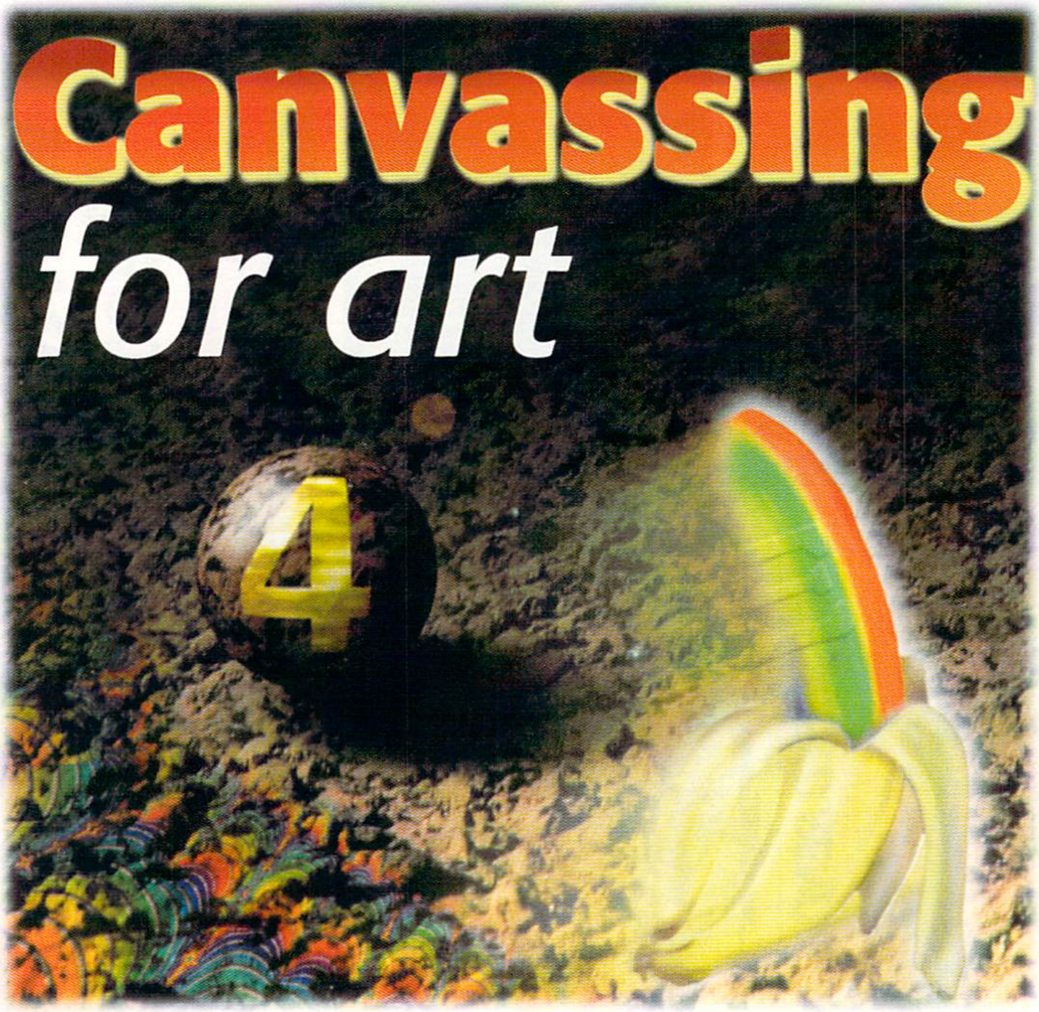
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Canvassing for art



Andy Maddock sets up his easel and gets his paint pots out for a session with **Xi-Paint,** a brand new Greek-like paint package



The Amiga has always been associated with the ability to create graphics of an excellent quality, and although there are more paint packages, spreading from shareware to commercial releases, there has never been a package that features drawing/paint tools, raytracing and animation all in the one package. Xi-Paint 4.0 has finally been released and includes more features than version 3.2.

Version 3.2 was previously released on the Aminet CD, version 11, so if you have that, you'll have a good idea of what Xi-Paint is. The new version comes on a CD-ROM which enables the use of a quick and efficient installation process which keeps all the files together, and you can always revert back to the CD should you need a back-up copy of files or pictures.

Xi-Paint offers support for various graphics cards including the common Picasso, CybergraphX and Retina boards. There is also the standard use of the AGA's screen resolutions, not to mention the Ham6 resolution for non-AGA owners.

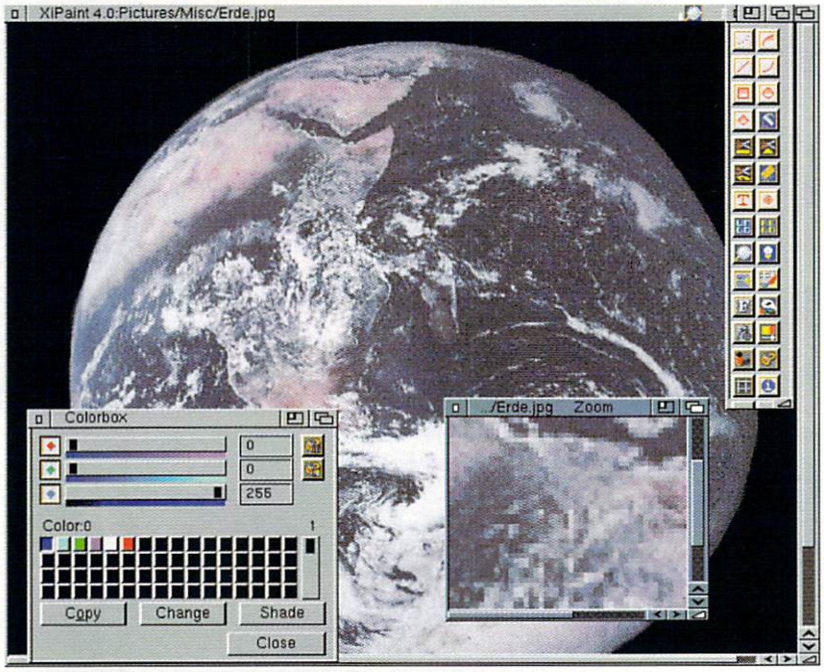
The first thing that greets you is the installation process, which is fairly harmless – it's just a case of selecting a directory and installing the files. Once it's set-up, you can

LAYING OUT

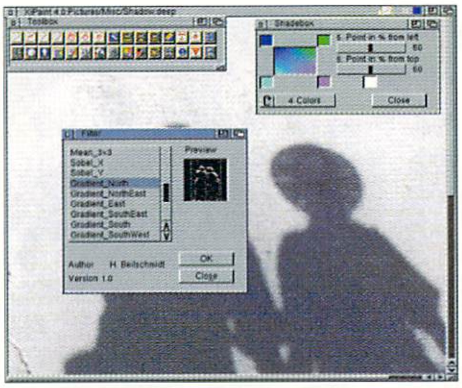
The layers feature has become one of the most essential tools that any professional art package should have. The ability to paste pictures on top of each other can produce superb effects by any standard.

The idea is to load up multiple pictures and super-impose them over each other, giving a transparent look. Xi-Paint offers an easy solution for even a beginner to instantly produce professional pictures.

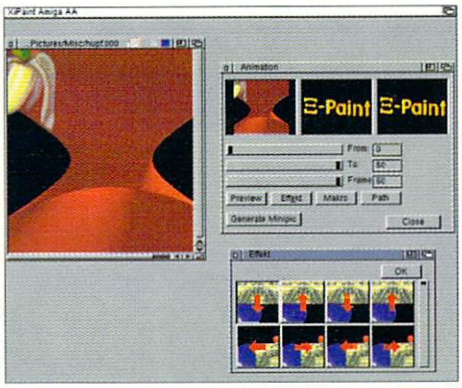
The simple way to produce layered pictures is to load up a picture in one window, and in the second you can draw a solid shape – perhaps a circle or square. All you have to do is select your background picture as 'background' and then open up the light table, whereby you can alter the configuration. Once this is done, all you have to do is open the 'layers' window and click 'add', which will then merge the two pictures together, producing what looks like a ghost image on top of the other.



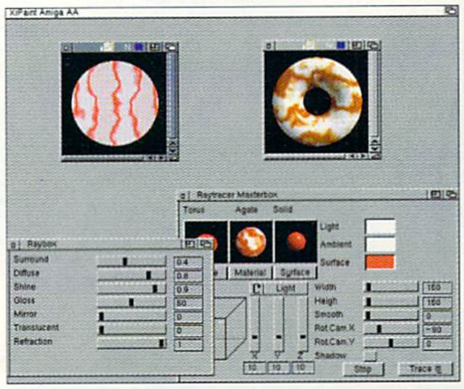
All the windows can be displayed at once on the main screen, which is Xi-Paint's best feature by far



Using filters can be invaluable for any budding Amiga artists, creating amazing effects with a click of a button



The animation feature isn't as complex as you may be expecting. Some of the options are quite limited



The raytracing feature is a joy to use, especially if you have never actually used a ray-tracing package

configure the preferences file, which is separate from the program itself, the type of graphics card you are using, if any, and the screen resolution to suit your particular monitor. Once that is all configured, you can make your way to the program itself.

You will notice that there are four menus at the top of the screen, one for all the file actions, one for selecting various windows and the others are for the actual drawing tools and raytracing features.

Open window

The thing that impressed me is the fact that all the windows are opened via the menu at the top of the screen. For example, if you want to do some raytracing, you could select the option from the menu and a window would open up on the main screen, allowing you to use that particular feature. All the windows have a re-sizing gadget allowing you to position them to your own particular preference – this feature is not too dissimilar to that of Adobe Photoshop on the Macintosh. Whereas with a package like D-Paint, you have to double-click on the drawing tool which would then open a menu containing all the options, which consumes a lot of time, Xi-Paint is instantly accessible and you can select which windows you use the most and organise them on your screen.

As soon as I began to open up pictures, I could tell that version 4.0 was slightly faster than the previous 3.2, and as speed is very important when working on graphics, it made the whole process a lot easier. When you do open pictures you are given a small thumbnail/preview picture arrangement in the requester itself so you can identify the picture you want to load, which means there's no hassle naming files with complicated filenames.

As soon as I began to open up pictures, I could tell that version 4.0 was slightly faster than the previous 3.2, and as speed is very important when working on graphics, it made the whole process a lot easier

The raytracing feature is an excellent new addition to Xi-Paint. Even though it doesn't stretch to the extremes of complete packages such as LightWave and Imagine, it still has enough to offer to enable you to produce half-decent images. The whole raytracing package is really simple to use as there are shapes, texture and surface details all included which can be loaded up instantly and raytraced with a few clicks of the mouse. All the main detail options are included like glossing, mirror imaging, diffusing and refraction, so there's enough depth to the feature to give a newbie raytracer value for money.

There are only a couple of gripes I have with Xi-Paint. Firstly, the whole package seems rather more complicated and cumbersome than it should be. The windows can get rather awkward when you're trying to work on a picture, because constantly opening and closing them can begin to get tiring. Having said that, though, it's easy to choose a selection of windows and use them for the part of the picture you are working on. For example, if you are raytracing, you would obviously open the raytrace window and perhaps the toolbar and a selection of brushes which are used most. It's all a matter of choice.

I have to admit I was pleasantly surprised when I opened two fairly large pictures and realised they could be cut and pasted onto each other with great speed and efficiency. This is also another good feature as there's the possibility of either working on two pictures at once or using one and sending the other to the back. This saves an enormous amount of time, especially if you are working on a large project.

Error free

When you open your window containing your picture, you will find that when you select a drawing tool to use, it will appear in the top of the window as an icon. Therefore, if you're working on a number of pictures you won't become confused or make simple errors. It's small additions like this which make Xi-Paint good to use. It's quite user-friendly and considering the amount of manuals which accompany many paint packages, you won't need to do as much referring back to find information. The majority of the package is fairly self-explanatory, but just in case things go wrong, Xi-Paint offers a full on-line help manual on CD in the form of an AmigaGuide document, which means you can even run that in the background when you are, for example, idly raytracing.

As a package, Xi-Paint handles all the major functions that any other package does. If it only lost its cumbersome look and feel it would probably be a sound alternative to that of D-Paint 5 or the now redundant Brilliance.

Animated art

Another new addition for this version, along with the ability to raytrace, is animation. All you have to do is draw various frames in the package itself and as you save each one, Xi-Paint will create a directory and store them all. You can then load up the animation editor, and a pop-up window will appear giving you a moving preview of your animation. From here you can edit each individual frame by dragging it out, making alterations and then Xi-Paint will save it back into place. Each frame of animation has a filename extension from .000 to .999, organising your pictures into the correct order. The only drawback is the amount of space each picture will take up on your hard drive.

Bottom line

Product details

Product	Xi-Paint 4.0
Supplier	G.T.I.
Price	£49.95
Tel	+49 6171 85937

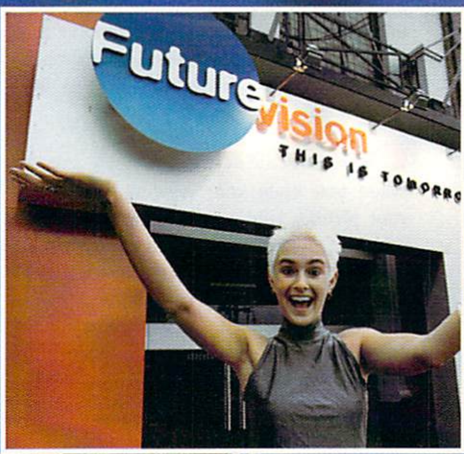
Scores

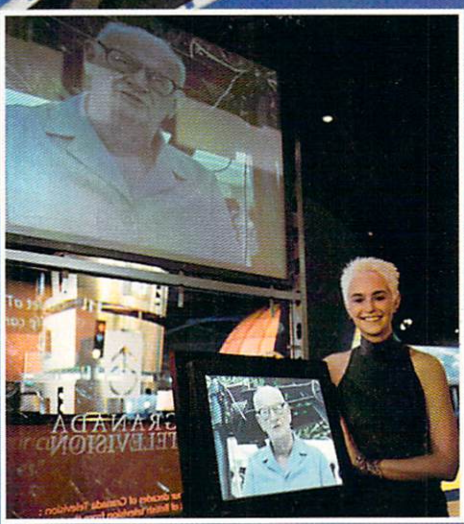
Ease of use	80%
Implementation	84%
Value For Money	73%
Overall	81%

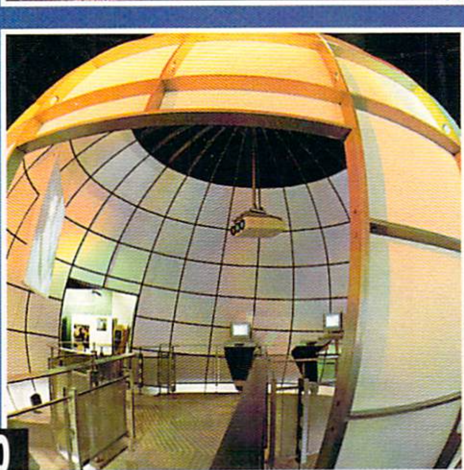
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Monitors can be one of the most expensive purchases for any home computer, and the decision to buy one shouldn't be made too easily. A lot of monitors offer a variety of different features which, depending on what you use it for, can be extremely effective. A good monitor is an essential purchase for any Amiga user and whether it's for graphics or games, you will always need to get the best out of your machine. Most of these monitors either require or are greatly enhanced by the use of a graphics card. Please check the compatibility with individual dealers.

Big screen

Amiga M1764



The Amiga M1764 should, and quite rightly so, be the most popular monitor out of this selection because it can handle as many different screenmodes as you can throw at it. It can happily work away with Workbench running in resolutions such as Double Pal and still be rebooted to handle the standard screenmode for games, which the rest of the monitors fail to do.

The Amiga M1794 has to be one of the most versatile monitors around as it's fitted with power management circuits for environmental sound energy saving and synchronisation with TV and video signals, not to mention the extremely efficient, if not rather complex, on-screen display.

The tilt and swivel base obviously offers many angles which can be used to divert the sun and reflections, and in conjunction with the wide screen look makes the M1764 look as professional as it sounds.

Don't worry about the compatibility between the 15-pin monitor cable and the Amiga's RGB port either, because the whole package includes a 15-pin connector which will have you up and running within minutes.

If you're looking for a well built monitor which is completely focused only on Amiga technology, then this is undoubtedly the one for you.

Bottom line

PRODUCT DETAILS	
Product	Amiga M1764
Supplier	Microvitec
Price	Call Amiga Technology for details
Tel	0049 6352 709

SCORES	
Ease of use	85%
Implementation	87%
Value For Money	N/A
Overall	83%

ViewSonic 17GA



The ViewSonic series is another line of monitors which has a good reputation. The last series was the 17 and 15 inch GS series, and the former received a highly credible 8/10 exactly 12 months ago in *Amiga Computing*.

The main problem back then was the fact that the monitor was unable to sync down as low as the AGA chipset, which meant that graphics card owners would have the advantage. Sadly, this is still the case for AGA Amiga owners. Although it has a range of 30Khz-69Khz, it will just about work with one or two resolutions. However, for the price it's certainly not recommended as the monitor will hardly be using any of its potential.

The new GA series has certainly been completely revamped as it features a more box-type look with even more controls aligned cleverly alongside the lower edge of the monitor screen, almost lost in the huge plastic casing.

As with all 17 inch monitors today, the on-screen display is present and features all the configuration controls you could ever need – whether it's adjusting the colours or screen size you'll be able to set it up for your own personal tastes.

As a monitor for graphics cards, it's pretty standard although it will give you a good clear display which is very important for any graphics enthusiast.

Bottom line

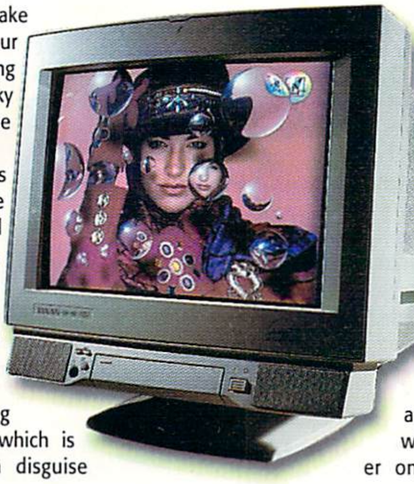
PRODUCT DETAILS	
Product	ViewSonic 17GA
Supplier	ViewSonic
Price	£690 approx
Tel	01293 643900

SCORES	
Ease of use	84%
Implementation	84%
Value For Money	81%
Overall	83%

TAXAN 730LR

The Taxan, unfortunately, is one of the many monitors which won't sync down to a suitable AGA screenmode. However, if you happen to own a graphics card and think the amount of time you spend using art packages warrants the price tag, then the Taxan would offer a suitable solution.

It's a whopping 17 inch monitor which means you'll have to make some extra space on your desk because the casing certainly looks very bulky and clumsy. However, the secrets lie inside.



The 730LR offers built-in audio with the speakers positioned either side of the panel, which flips down to reveal a number of controls. The buttons inside are reminiscent of the old Spectrum home computer days featuring the soft grey rubber, which is actually a blessing in disguise because you wouldn't believe how quiet it'll make the monitor. Apart from when you switch the monitor on, it'll be as quiet as a mouse which is very rare considering the noise of today's technology.

The actual monitor is very sturdy and features a low static emission to prevent any kind of electric shock which other monitors will gladly greet you with first thing in the morning. The screen can be configured to your liking and is probably one of the most friendly monitors, both to your eyes and the environment.

It features a special anti-glare and anti-reflecting coating which will make it easier on your health, while providing a much clearer display. Despite not being compatible with the AGA chipset, graphics card owners will find this an absolute delight because of its excellent clarity and user-friendly appeal.

Bottom line

PRODUCT DETAILS

Product	Taxan 730LR
Supplier	Taxan
Price	£650 approx
Tel	01344 484646

SCORES

Ease of use	88%
Implementation	89%
Value For Money	83%
Overall	88%

status

Andy Maddock and **Tina Hackett** review the latest and greatest monitors around today

SONY MULTISCAN 17sfII

If you've got a graphics card then this has to be the monitor for you

Out of all these monitors, The Sony Multiscan looks amazingly at home with the Amiga. I can't explain why, it just looks like they were made for each other.

It's just a shame that it's not too happy near a standard AGA machine. Yes, you've guessed it – graphics boards only folks. However, having said that, I did manage to get the Sony monitor to sync down far enough to run Workbench in a high resolution mode. If you really want to pay around £650 to have your monitor sitting there in one screenmode doing next to nothing, then buy it, but as it stands don't even consider it.

If you've got a graphics card then this has to be the monitor for you. The picture is really clear and offers a good display of colours. You can, of course, configure the brightness and contrast from the push of a button as well as the geometry of the screen.

Overall, it's a well designed monitor which will cater for all your graphical needs and will, without doubt, provide you with a suitable solution for any problems a graphics fan may encounter.

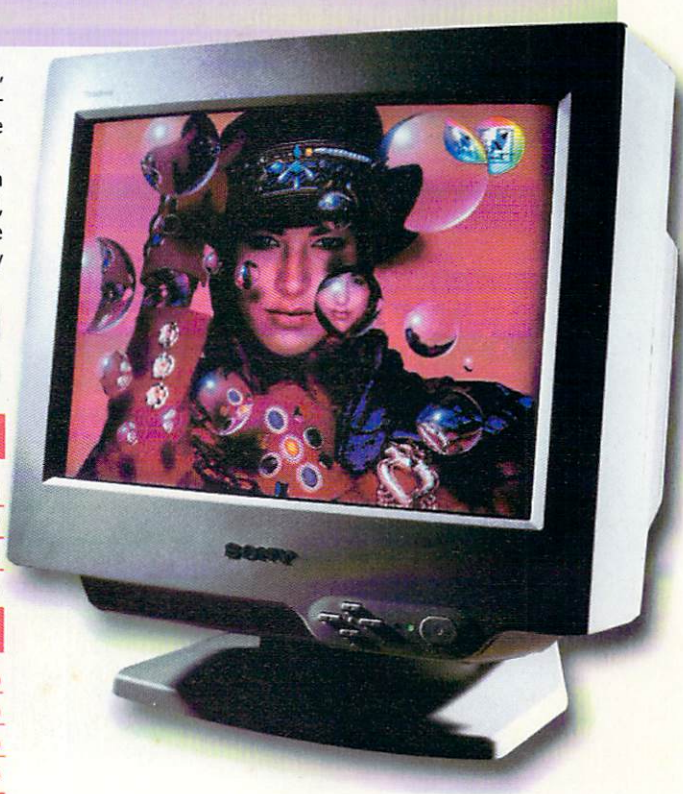
Bottom line

PRODUCT DETAILS

Product	Sony Multiscan 17sfII
Supplier	Sony
Price	£650 approx
Tel	Tel: 0181-760 0500

SCORES

Ease of use	85%
Implementation	90%
Value For Money	90%
Overall	90%



PHILIPS 17B 17" DIGITAL AUTOSCAN



What first strikes you about this Philips model is its curvy design. Measuring 17 inches, it certainly looks the business and for those who want a monitor for professional graphics use, then the Philips is a good option. It offers a maximum resolution up to 1280x1024 pixels. The 17B automatically scans horizontal frequencies from 30Khz to 66Khz.

Facing the monitor, you are offered a well-placed set of controls. Along with the usual volume and brightness dials, there's a conveniently placed on and off button which does, however, feel rather flimsy. An on-screen display makes life easier, especially with its bright, colourful presentation, and this allows you to change things such as vertical or horizontal size and tilt correction.

The base allows you to swivel and tilt the monitor to the right position, eliminating painful neck and eye strain, and the built-in speakers are well located far back on each side of the monitor, which is ideal for creating stereo-sound. It also meets the MPR-II Standard for low emission and the screen is coated with a special anti-glare and anti-static surface.

Bottom line

PRODUCT DETAILS	
Product	Philips 17B
Supplier	Philips
Price	£570 excl VAT
Tel	0181-689 4444

SCORES	
Ease of use	90%
Implementation	90%
Value For Money	94%
Overall	92%

HITACHI CM1711ME

A big, bulky looking monitor, the Hitachi isn't very space conscious. It's also very heavy which means the swivel and tilt base is really hard to operate. For the environmentally friendly though, this model has a power-saving system which allows the monitor to go into low power states when not in use.

The flat screen CRT eliminates glare and the INVAR shadow mask gives a sharp focus and high contrast to minimise eye fatigue. The buttons are located underneath the monitor and offer functions such as degaussing, contrast and brightness, trapezoid and pincushion. Although the actual screen offers maximum viewing with its flat borders, the Hitachi is only a good option for those who have a huge workstation.



Bottom line

PRODUCT DETAILS	
Product	Hitachi 17MVX Pro2
Supplier	Hitachi
Price	£599 excluding VAT
Tel	0181-849 2000

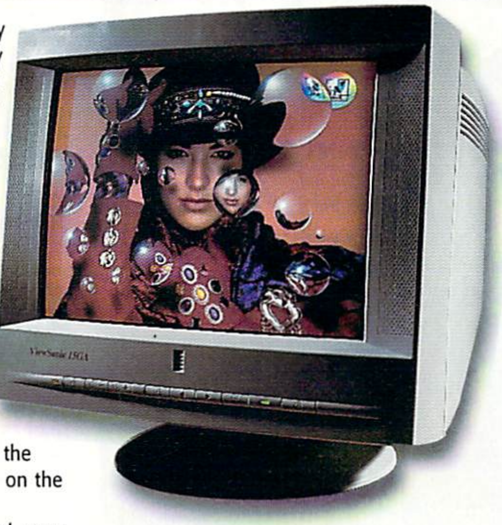
SCORES	
Ease of use	67%
Implementation	65%
Value For Money	70%
Overall	79%

SOUND

The majority of the monitors featured here do not include built-in speakers, which means when you spend your hard-earned £600+, all you're paying for is the picture on the screen. You will always need speakers, even if you're designing graphics, because music can be the perfect thing for drowning out the annoying whir of a hard drive or the high pitched sound given off from high-end monitors.

Almost a year ago we reviewed all the latest speakers available to Amiga users. Here are two of the best.

Veiwsonic 15GA



The ViewSonic looks like a nice tidy monitor with all controls universally the same size and shape located underneath the screen. The display offers a good viewing range and tries to minimise the room it takes up on your workstation with its compact case. If desktop space is of optimum consideration, the monitor measures 374mm in width, 383mm height and depth is 407mm.

It offers 0.27 dot pitch – better than average, though not brilliant – and has automatic tracking of horizontal frequencies of 30 to 69Khz. Although equipped with perfectly adequate built-in speakers, they spoil the look of the monitor by being placed on the front panels.

The various buttons offer control over speaker and headphone mute, speaker and headphone volume, and select menu items from the on-screen display. The ViewSonic also ensures true to life colours with its ViewMatch colour control system which easily allows the white of the image to be adjusted, as well as R and B signals, while keeping the green signal stable as reference.

This is a good all round monitor which is a great option for those short of desktop space – especially as it incorporate 2.8 watt built-in speakers.

Bottom line

PRODUCT DETAILS

Product	ViewSonic 15GA
Supplier	ViewSonic
Price	£430 Inc VAT
Tel	01293 643900

SCORES

Ease of use	85%
Implementation	87%
Value For Money	83%
Overall	85%

SyncMaster 17GLsi

This is by far the most well designed monitor in this collection. The borders of the SyncMaster are flush to the screen so that the overall display is easy to see, and the controls are hidden away in a panel which gives the monitor a very neat finish.

By simply pressing on this panel, the controls drop down giving you access to various buttons. These operate the on-screen display and functions such as colour control and the degauss, the function which demagnetises your screen. The whole monitor feels well built and is not hindered by fiddly switches that feel like they may break off at any moment. The power button, for example, feels very sturdy.

The monitor is mounted on an unusual base which, unlike most of the others, is not solid plastic. However, this makes tilting and swivelling the monitor extremely easy because whereas some monitors need a fair bit of force to move it a little way, this swings up or down very smoothly but at the same time still feels sturdy.

As you'd expect, you can alter things like brightness and contrast. A little niggle I have here is that even when this is on full, it's still not as bright as some of the others. This, though, shouldn't be too much of a hindrance. You may want to note also that this model does not have in-built speakers.

All in all, this is an excellent monitor which has been well thought out.

Bottom line

PRODUCT DETAILS

Product	SyncMaster 17GLsi
Supplier	Samsung
Price	£699 excluding VAT
Tel	0181-391 0168

SCORES

Ease of use	90%
Implementation	80%
Value For Money	80%
Overall	93%



Sony CSS-B100

This set was designed to fit underneath the monitor itself. You can connect the speaker set up via the phono jacks included, and for £85 you can't really expect any other speakers to be of this quality.

PRODUCT DETAILS

Product	Sony CSS – B100
Supplier	GEM
Price	£85
Tel	01279 442841
Ease of use	8
Implementation	9
Value For Money	7
Overall	8



HiQ Hi-fi Stereo Speakers

The HiQ stereo speakers offer excellent value for money at only £49.95 and with an output of 80 watts make this the perfect set-up for any monitor. Although the controls are rather flimsy, the HiQ speakers sit next to the monitor rather than underneath.

PRODUCT DETAILS

Product	HiQ Hi-fi Stereo Speakers
Supplier	£49.95
Price	HiQ Limited
Tel	0181-909 2092
Ease of use	8
Implementation	8
Value For Money	8
Overall	8





Neil Mohr looks at an unusual way of fitting extra hard drives to your machine

Normally, when you get hold of a desktop box or tower upgrade for your A1200, you would imagine that you would be putting your A1200's motherboard and other innards into your new tower box. Intrinsic Computer Systems, however, has come up with a slightly peculiar approach – buy yourself a tower or desktop box that already has a hard drive and CD-ROM in it and just connect it up to your A1200 via the IDE connector.

Getting the multimedia station up and running does not involve much more work than fitting an internal 2.5" hard drive. Whip off the top of your A1200 and using the provided cable, plug this into the IDE connector. If you have a tower version the cable comes out of the left side of your A1200 and plugs into a 3.5" IDE connector that pokes out of the side of the tower. On the desktop version, the IDE cable comes out of the back of your A1200.

To get both the A1200 and station powered from a single power switch, Intrinsic provides two power supplies – one plugs straight into

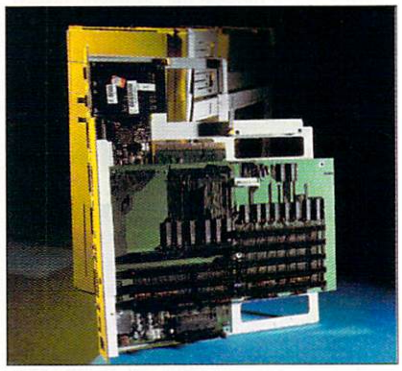
The original Micronik tower came out around a year and a half ago and offered an alternative to buying a big box Amiga to get access to Zorro II slots. Having seen the original tower, one thing that strikes you about it is just how sturdy it is, probably too sturdy. It was quite a trial trying to prise out the A1200 motherboard from the original tower because it is tightly secured behind a good number of metal 'girders'.

The new version of this tower is a whole new kettle of fish. With a completely custom-moulded casing, everything just clips together – the only screws needed are for securing the motherboard and disk drives in place and this can be completed in about 3/4 of an hour.

Fitting the tower together is simple, even though the process is not helped by a poorly translated German manual. Once you have removed your A1200 motherboard from the now defunct old casing and shielding, attach it to a plastic tray that slides into the side of the tower and fix in place with two screws. This provides a very easy way of fitting and getting access to the motherboard.

If you're going to want to use Zorro II boards then there is the Zorro bus board expansion. This plugs into the normal A1200 expansion slot and the actual board that your Zorro cards plug into slots into this. This is then screwed into the aforementioned plastic tray which slides into the tower. You now have five Zorro II slots, 3 PC ISA slots and a Video slot.

One important change to the new version of the tower is the inclusion of a right-angled PC slot adapter which allows you to still use the A1200 PCMCIA interface. On the original Micronik tower the interface sat flush with the bottom of the tower casing, making it impossible to use. The new design has the motherboard raised about an inch above the bottom



of the casing, leaving enough room to fit a right-angled adapter which allows devices to still be used. For example, there is enough room to fit the Surf Squirrel, and you can trail the serial leads out of the lowest rear panel. The SCSI lead, however, is too wide to fit but long enough to connect up to the internal 3.5" bays for a CD-ROM drive, hard drive or Jaz drive, and if the standard two 3.5" bays are not enough for you, the tower can be extended vertically with up to four extra 3.5" bays clipping seamlessly on top of the existing box.

Other welcome features are the two kettle power sockets in the back of the tower – one is to power all the innards of the tower itself and the second is the power out for a monitor. Therefore, when you hit the power switch everything comes on at the same time.

With the tower you get a keyboard kit that lets you place the old A1200's internal keyboard into an external casing. This new version

BOARDS AND BITS

Even though the Zorro bus board plugs into the A1200's expansion slot, it provides a through port so your A1200 expansions can still be used. There are, however, a few problems associated with the way the bus is handled along with the Zorro slots. Firstly, the version of the tower reviewed does not work with the Blizzard 060 and Falcon 040 boards.

However, a solution is being worked on and may be available by the time you read this, so contact White Knight to check. Also, the forthcoming Zorro III version of the tower will be compatible with these boards.

The one area that this version of the tower loses out on compared to the old version is the amount of room you have to fit A1200 expansion boards. The old version gave you plenty of room and easy access to the A1200's expansion slot, but with the new tower having the motherboard fixed to a sliding tray, room is more restricted and any A1200 expansion board much thicker than 15mm is not going to fit.

COST CUTTER

Due to all the bits and pieces that go together to make up the finished multimedia station, and the fact Intrinsic has been asked by people for customised set ups, the company is fairly flexible in what you can order. You can either go for a fully kitted up, dual device system for £399.95 or you can pick and choose your own system from the following list:

Bare Tower with 220W PSU	£54.95
Cache CDFS II	£49.95
Dual device	£29.95
Quad device	£49.95
1Gb Hard drive	£209.95
Quad IDE CD-ROM	£59.95
Trailing lead	£9.95
CDDA CD phono out	£4.95
Audio leads	£1.95

the back of the station and a two-plug expansion connector is also plugged into the back of the station. This is used to power your monitor and A1200, so when you hit the power switch on the front of the multimedia station everything comes on at the same time.

READING TIME

The standard tower setup comes with a quad-speed CD-ROM which reads at around 600K/s, and a 1Gb hard drive. The Fujitsu mechanism in the tower we have seems very quick and was putting out transfers of 2.5Mb/s.

Along with the normal Workbench 3 installation on the hard drive, you get Cache CDFS II. This provides both the ATAPI CD-ROM driver that lets you access the EIDE CD-ROM which is in the tower, and CD32 emulation, so if you have any CD32 games on hand you will have a better chance of getting it to work.

One unusual option that is with the Intrinsic station is the addition of a possible four drive adapter, which allows your normal internal A1200 IDE interface to access up to four EIDE devices. The four device adapter can be bought at a later date, so if you start off with the CD-ROM and hard drive in the dual system, you will be able to add additional hard drives by getting hold of the four device adapter.

I'm not overly keen on the tower version of Intrinsic's multimedia station. Firstly, you get lumbered with a full-sized tower which takes up an awful lot of desk space on the left-hand side of your desk. I may be biased about this as I am a left-handed person, which makes using the mouse on that side of the desk almost impossible, but the IDE cable is so short there is no chance for you to move the tower anywhere else. Considering the primary use of the tower is to hold a CD-ROM and hard drive, a much smaller box would have been appropriate.

Intrinsic does an alternative desktop version which I consider far more practical than the tower version because you can place you monitor on top of it, leaving just a keyboard at the front. Overall, the Intrinsic multimedia stations are an unusual expansion path that do provide a relatively cheap way of getting hold of a large hard drive and quad-speed CD-ROM. The quad device version provides you with a cheap way of letting you add more than the usual single drive to your machine, and as 3.5" IDE drives are the cheapest type around, it could be considered a cheap alternative to a SCSI solution.

Bottom line

REQUIREMENTS

RED *essential* | **BLACK** *recommended*

A1200/A600

PRODUCT DETAILS

Product	Multimedia Station
Supplier	Intrinsic Computer Systems
Price	£399.95
Tel	01474 335294

SCORES

Ease of use	**89%**
Implementation	**72%**
Value For Money	**88%**
Overall	**80%**

of the Micronik tower is excellent. It may not seem as sturdy as the old one, but the added ease of assembly, improved looks and extra expandability more than make up for this. The only shadow cast over the Micronik is the price, and before you go ringing White Knight it does not sell any of the parts separately – only the entire system as reviewed.

Bottom line

REQUIREMENTS

RED *essential* | **BLACK** *recommended*

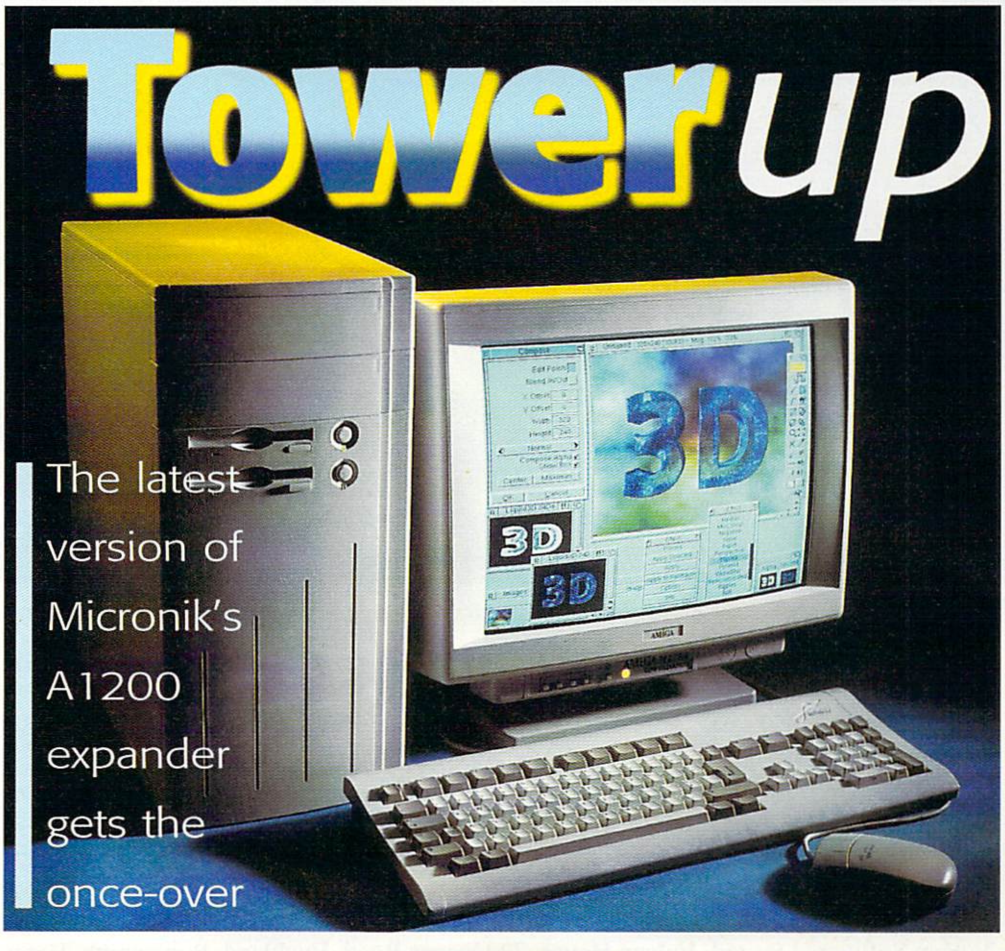
A1200

PRODUCT DETAILS

Product	Micronik InfinitiV Tower
Supplier	White Knight Technology
Price	£499.95
Tel	01920 822321

SCORES

Ease of use	**90%**
Implementation	**88%**
Value For Money	**79%**
Overall	**85%**



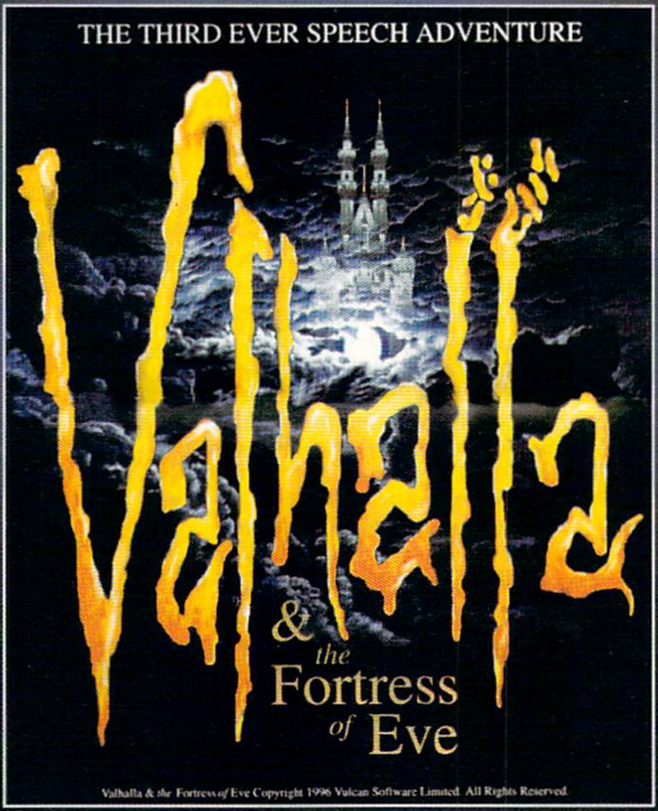
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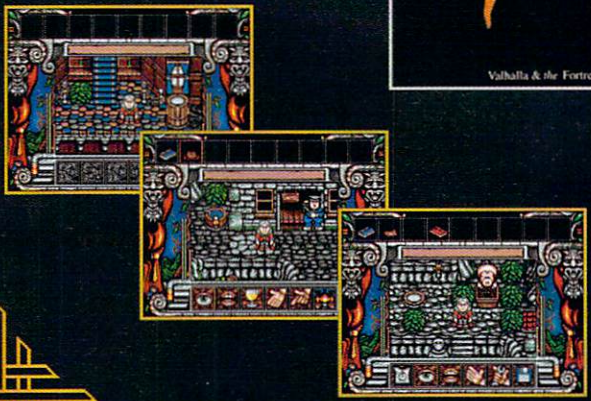


Amiga Computing – 92%

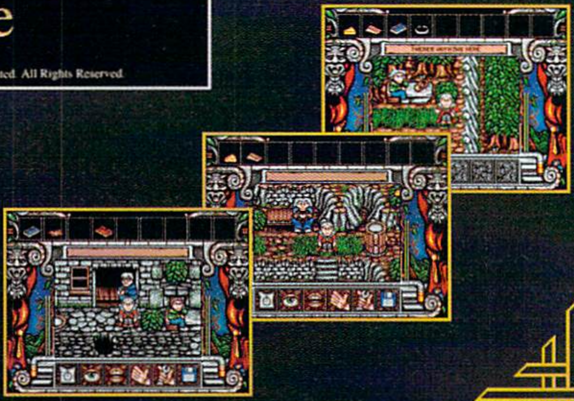
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AMIGA – NO PLACE LIKE HOME

For quite a long time *Amiga Computing* has, of course, tried to figure out how the Amiga could and should get back for the future. The discussions that have taken place are mostly about PCs which I find will be the beginning of the end for the Amiga, just trying to stand up to the standard of the PC.

Using a PC at work, I am very familiar with the computer and its drawbacks. One important drawback is the need for very detailed computer knowledge just to install hardware or even software. This is no problem when you have access to programmers and other PC-educated staff, but at home this normally means that a PC bought for home use will never be upgraded, because even though the owner might buy new hard or software once or twice, he/she will find out that they are not able to install it.

On the Amiga, home installations of new hard and software are as easy as you can ever dream of. Another point where the Amiga is years ahead of the PC is in the ability to upgrade easily. When I bought my A1200 in February 1993, the normal PC was a 286 and today I am still able to get improved programs, handle Photo-CDs and so on with my Amiga, but what could I have done with a 286 today? Almost nothing.

If you want a home computer and not a business machine then there is no better choice than the Amiga. Where do you see the market in the next ten years? Exactly in home computing and that is also what the PC companies have seen, trying to get the PC more user friendly – but still the Amiga is years ahead.

And another thing. I don't need 24-bit photos on the screen – the screen can't show them anyhow – as long as I have HAM8, but I do need 24-bit photos in printing and that is precisely what Studio II and my Amiga are capable of doing.

Sometimes when I need it, I can even use my Amiga to do some homework and connect it to the PC at work without any problems because of the flexibility of the Amiga. Thanks to this flexibility, I can even bring files home from Aminet which have been downloaded on the PC and use them on the Amiga.

What more would you like a home computer to do and still be sold at a competitive price?

Well, that was just my opinion, but I missed it in your magazine.

Gert Johansen, Denmark

Yes, quite right. In our opinion, the Amiga is far more user-friendly than the PC. It's also true that PCs are evolving so quickly and you get the situation where what is the latest technology one day is deader than a dodo the next. Perhaps, though, the Amiga is guilty of resting on its laurels in failing to keep up – a new operating system and faster processor to name but two. It's user friendliness and price would make it an ideal home computer but a computer in the home has to be suited to leisure use, i.e. for playing games. After all, you can't play Duke Nukem on the Amiga – that's the bad side.

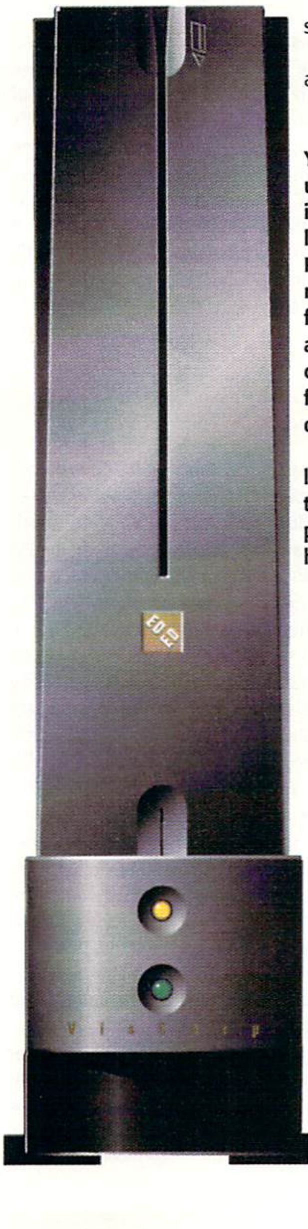
However, the future for the Amiga does look a lot brighter in the hands of VIScorp who not only knows the machine inside out but has a vision of a worldwide plan to get the Amiga into the home again. Now, that's a home computer.



You lot have certainly been busy writing in and telling us what you think of **VIScorp** as the new owners of the **Amiga.** It's a very mixed response as you can see, but if you want to get it off your chest write to the usual **address.**



Keep those letters coming! There's a £50 pound prize for the best letter printed as an incentive



The ED from VIScorp:- hope for the future of the Amiga?

NO FUTURE?

It seems that VIScorp has put the final nail in Amiga's coffin. With the recent announcements about the plans it has for the future, I feel too disappointed (I know I'm not the only one) and tired to blame anyone, even if I should. After all, the Amiga is not the only quality machine that loses the market war. NeXT machines and Archimedes are distinguished examples of brilliant computers that vanished under the weight of stupidity and mass-delusion.

Yes, I might be over-reacting but the end of the Amiga is clearer now, more than ever (don't fool yourself that I'm a pessimist).

No RISC? No AGA updating or replacement? No 16-bit sound? Yes I agree with you that the Amiga has an excellent OS, but can this be the only feature to save the machine? As an owner of an A4000 with CyberVision 64, I know there is little room left for AGA chipset...What's next? make Amiga a PC-style computer? Put-any-card-you-like-in-the-box-and-let-the-drivers-do-the-rest? A solid and fine-tuned machine is far better and workable than any silicon-salad mixture. After all, other solutions are already given out there, and they offer more tempting options than a set-top box (yes I mean BeBox among others).

So analysing the situation, discussing and exchanging personal views is not going to help. You know something dear Ezra? The one thing worse than the Amiga's future at the present moment is the loss of any hope. VIScorp has killed all our hopes. What else can be said?

Sorry for the grumbling. I can't help it.

Yiannis Maragakis, Hellas

TOLD YOU SO

As a fairly regular writer to Postbag I hesitate to say "Didn't I say so?", but I have a 'gut feeling' that the exit of Escom and Amiga Technologies from the Amiga scene will, in the long run, prove to be the best thing that has happened to the Amiga in a fairly stormy existence. I always thought that Escom had bought the Amiga for the wrong reasons and was neither able nor willing to properly exploit its potential.

But the new owners, being a relatively small company who knows what the Amiga can do and what it is best at, together with its own 'on-board' expertise in the ex-Amiga personnel will, unless I am much mistaken (and I am quite prepared to put my money where my mouth is!), license the technology so that they derive a substantial income therefrom if they do not have the resources in-house.

So the current rush to sell basic A1200s by those uneducated people prepared to sell a really good base computer at the stupid price of £150 will, in the long-term, backfire on them. At a personal level, I have been slowly but surely upgrading mine. Currently, it looks like this: an A1200 working through a nice new Surfing Squirrel connecting it to my HiQ Workstation with my CD-ROM (isn't it nice to listen to music whilst you are working?). The Squirrel also runs my Zip drive which I use mostly for backup to my recently acquired Seagate 5018a 3.5" 1.1 Gig hard drive which, thanks to those nice people at Eyetech, now sits snugly inside the casing of my A1200. And to top it all off, I managed to find a 16Mb SIMM from my friends down at First Computer at an excellent price, so I treated myself to a Blizzard 1230/4 68030 accelerator Trapdoor extension. Finally, it all connects to my Project Printer with which I am well pleased.

I used to think my machine was pretty good before I upgraded, but boy, you should see it go now! It was interesting talking to the lads at Gordon Harwood (the distributors in this country for the German Blizzard board). I had to wait because they were sold out and awaiting a fresh delivery from Germany – apparently there is great difficulty keeping up with the demand. If, as it was stated, the boards are ordered in batches of 50 at a time just for this country, it doesn't take a genius to work out that there are a lot of dedicated Amiga users around?

So take heart, oh ye of little faith (and I don't mean *Amiga Computing*). It will all come right in the end!

Ian Aisbitt, North Yorkshire

There are obviously a lot of dedicated users still out there – why else would there be so much support for a machine that was off the shelves for more than a year? VIScorp will be tapping into a whole new generation of Amiga users who will hopefully see (and want to fully exploit) the benefits of the machine.

HOPE ON THE HORIZON

I think things are finally looking up for the Amiga, with Escom selling Amiga Technologies to VIScorp, who actually really knows and cares about Amigas. Escom never really cared about the Amiga and this showed in the attitude of its sales staff, and their lack of commitment. Perhaps in the hands of somebody who actually cares about the Amiga, things will be different with, hopefully, a more aggressive advertising policy and a more realistic price range for the A4000 and the Q-Drive, and a redesign of the Walker's case. However, the Amiga must be improved if it is to survive. This is down to VIScorp and the users of the machine.

The main thing VIScorp needs to do is improve the now much-dated OS and Workbench. Networking and better printing facilities are a must. It must also contact companies that use the Amiga in the work place and find out what they want and need from the OS, then work closely with companies such as Digita so that the OS will provide the things they need. Finally, it should improve the look and feel of Workbench. Only today, I had a PC owner tell me that his PC was better than my Amiga 1200 because Windows looked better! If these improvements are followed the Amiga will have a killer OS.

An area for hardware development is again networking. For businesses to use Amigas they are going to want a relatively cheap but quick way to network their machines. Ethernet is ideal but so expensive on the Amiga, so if there was a cheaper Ethernet with support from the OS we would see more Amigas in offices. VIScorp also desperately needs to get software companies such as Digita to produce killer applications, even help them with production, and make sure all software companies (productive and games) do not leave the Amiga.

It is not all down to VIScorp though. Existing owners need to upgrade so that killer application software can be written that will run at decent speed. The first step is for non-AGA Amiga owners to upgrade. I know that some people say they cannot afford to upgrade, and I know that is true, but who says the computers have to be brand new.

I got my A1200 for a very reasonable price second-hand. VIScorp can also help by running a similar scheme to Escom with the cheaper upgrade price and exchange. Existing A1200 owners need to save up and buy hard drives, accelerators, more RAM, and CD-ROM drives, ultimately to power the Amiga's status so that it is easier for the companies to produce killer software.

Don't just settle for the Amiga you have. Spread the word about the Amiga, explore Workbench and shell, get the most out of your Amiga. We have a great machine, let's keep it that way, let's help VIScorp produce a PC beater. Most of all, don't be persuaded by PC owners that your machine is crap and that a PC could lick it any day. If this was true, how come the Amiga is still around and fighting, and kicking the PC in many fields?

David Simmons, Herts

DOWN UNDER

I would like to take some of your time to express my feelings on the Amiga and its current situation. First of all, here in Australia the Amiga market has gone from booming to bombed out. We had one Amiga magazine called *Australian Commodore & Amiga Review* which honestly didn't even come close to the quality of *Amiga Computing*. Now they have stopped publishing, Amiga owners rely on their local Amiga dealer to keep in touch with the latest [illegible]pherals etc.

I myself rely [illegible]*iga Computing* for this info, but the problem is that all the UK Amiga magazines are two months or more behind by the time they reach our shores. This is a bit disappointing, although the info in them is still new compared to what's here in Australia. I was amazed by all the new items..

I do believe the one reason that really ruined Commodore was the fact that it made it too hard to get its products. The Amiga here was only sold in *big* stores and the staff had no idea about them. For example, when I first looked at the A1200 I asked the salesman: "how many MIPS does it do?" and he replied "14Mhz." So I politely said: "no, not Megahertz but MIPS?" with which he again said "no its 14Mhz." I then started to get annoyed with his incompetence and didn't pursue the question.

Even when I was an Amiga Dealer here in Australia it took me one month of phoning the distributor for Australia and pestering for dealership. After one month I finally got dealer status and was able to sell some Amiga products. I also sold IBM PC machines and peripherals. Within the first day of business I had *full* IBM PC support from machines to hard drives and other peripherals. This just goes to show why the IBM outsold the Amiga in Australia. If the distributors weren't so big noted about themselves and really wanted to push the Amiga they would have given me the dealer status on my first phone call instead of my 30th.

I was also close friends with another dealer who had been in business for over five years and had a good reputation. He sold IBM PC hardware and peripherals. He

GET CYNICAL

A certain amount of cynicism in dealing with the Amiga's current situation might be in order, but when one of its primary proponents begins to sound worse than the worst Amiga bashers, something is clearly not in order. There are many examples, but I would first cite the ESP section of Issue 11 of the US Edition (Issue 100, UK). Now, nitpicking generally won't do much good, but I'll gladly resort to it as a response to the same.

Yes, the Amiga line is underpowered and overpriced in many ways. The A1200 is an excellent computer but costs too much for the power. The Walker...ugh, I'm not going to even get into that. The A4000T is an excellent machine, comparable to Pentium PCs when equipped with a 68060. And while AGA might not be on the forefront of technology, I dare not so easily dismiss is.

Why? Of course, one can't deny that it's limited in resolution, is slow due to the planar display, and can only display the whole 24-bit palette in HAM8 mode, but there are some capabilities of the custom chipset that are NOT as outdated as some people would like to say, for example the 8-bit sound, which continues to surpass many PC sound cards, and animation speed. Now, certainly a very high-end PC is going to just outstrip your average Amiga in animation, considering it's had a four-year period in which to fly out ahead (only after catching up from a vast deficit, of course). But when you're talking about most computers, the majority of PCs just can't compare at animation speed, DESPITE the planar display of the chipset.

Over here in power-hungry America, I have had *plenty* of opportunities to see some nicely configured PCs, and the results can be pathetic at times. The best graphics chipset design can't do much if the computer itself has a fundamentally poor operating system and hardware design, as the PCs (and to some extent, the Macs) do. So a third-party chipset would probably perform well on the Amiga, but why?!

I will promptly LAUGH in the face of an argument that cites cost as an excuse for dumping the chipset philosophy. The Amiga has *always* had a custom chipset and, until now, was always well-priced. The A1000 cost about ½ as much as an IBM XT, and the A1200 and A4000 continued this general trend. Now suddenly, Escom comes along and overprices the life out of the Amigas, and suddenly people want to blame the custom chipset for it! It's absurd. And for that matter, the ECS can still outperform many modern PC graphics systems for some purposes (again, consider high-end versus the technology of the masses), not to mention how much better AGA is than that, and how much better AAA would be!

Yes, I said AAA! This chipset was nearly completed before Commodore died. And it was going to bring 1280x1024 screenmodes, 24-bit graphics, chunky pixel graphics modes, 64-bit hardware, a newer and faster blitter (with byte movement capability) and copper, and 16-bit 8-channel sound. Even three years later, this would still be an incredible update to the Amiga and would give the competition quite a challenge, considering the power and speed of the Amiga's OS. The AAA chipset would be very easy to integrate into the Amiga due to backwards compatibility with hardware and software, and the Amiga needs to get up and running again *as soon as possible* if it is to have a dream of succeeding. The AAA chipset would allow that...and expense would *not* be such a consideration, as I outlined above.

I'm beginning to think the Amiga was better off with Commodore. Management and marketing may have been pathetic, but at least Commodore, as a whole, was able to produce powerful Amigas at reasonable prices, and had a competent idea of where the Amiga was heading.

Michael Webb (a.k.a. MRW)

When the Amiga 1200 was relaunched, for example, it was very disheartening to see it appear £100 more expensive than it was when it left the market – not a great incentive, especially if it was meant to attract those who'd never even heard of the Amiga.

The Amiga is supposed to be the entry level computer but when you'd added the price of the monitor, it was hardly surprising that new buyers continued to opt for the PC. Although the software pack was very impressive, it was not enough to tempt people into buying an Amiga.

For the future, we would hope that VIScorp will continue to support the existing models and sell them at a price that will generate interest from new owners, not just the die-hard Amigans who know what the machine is capable of.

If you can't drag yourself out of your armchair and down to the post box, then why not e-mail us. Our address is ESP@acomp.demon.co.uk. Alternatively, you can send your letters in on a disk. Who say's we're not thoughtful and considerate?

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desperately wanted to sell Amiga products but the most he could get dealership with was an Amiga software distributor, so all he could provide to Amiga owners was software.

This is really a great disappointment. If the distributors had any sense they would have tried to encourage dealers to sell Amiga products, but instead they only supplied to very large stores who had staff with no knowledge about the machine. This, I believe, is what really destroyed the Amiga. The Amiga is great for its graphics capabilities and multi-tasking, but it's time for the Amiga to get with the rest of the world. The games I have seen for the Amiga in the last year are absolute rubbish.

What made the Amiga so big was its graphics power. The A500 and A2000 really ripped the backbone out of the IBM XT market and provided some healthy competition. An A500 killed the IBM XT in speed and graphics. But have most of the software developers forgotten that the competition isn't an IBM XT anymore, it's an IBM PENTIUM at 100Mhz with 32Mb of RAM and SVGA graphics? That's what the Amiga is up against now but the software developers don't seem to realise that. The new PC software is unreal, so good in fact you feel like your there. It's time to stop the support for the 68000 machines – it's like IBM supporting the XT machines still. The current games such as Super Streetfighter Turbo, Breathless, Extreme Racing and Gloom Deluxe are bringing the Amiga into the future, slowly. It's great to see games coming out that actually make good use of your 030 processor.

I would like to see all Amiga's with a minimum of an 020 processor. Even the A600 can utilise an 020 now so there's no excuse. I currently have an A1200 with an 030 50Mhz processor, 50Mhz FPU and 10Mb of RAM. I am saving hard to upgrade to a tower system and an 060 accelerator card with 18Mb RAM in total. I also feel that everyone should buy a multisync. monitor and really make use of the double PAL screen modes because they really make your Amiga look great. Finally, your magazine is great and it's the only hope most of us have of keeping in touch with the newest releases etc. Please keep up the good work. We need more magazines like yours that show the newest games and software, as well as the newest in peripherals. Your magazine, I am sure, is what contributes to 50 per cent of Amiga sales or more because where else do people see reviews of the latest on the Amiga? Hopefully, before it's too late, the things I have mentioned in here will actually get done so that we can all prosper from the great Amiga.

Corrie Dixon, Australia

This was a great letter which, due to space restrictions, had to be condensed. You make a very good point, Corrie. It's good to finally see games that make full use of the Amiga, but we need a lot more, though, to compete with the PC. With regards to your other point – if you're finding that the magazine becomes a little out of date, you could always subscribe.

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★ SPECIAL PRICED ITEMS ★

Commodore GmbH Germany, Commodore Philippines (manufacturing) and Commodore U.K. Ltd., has liquidated their entire Amiga inventory. A sizable amount of that inventory was purchased directly by Paxtron U.S. We also are receiving a sizable amount of hardware from Commodore subcontractors. Also included is the entire stock of chips and parts from Service Management Group (SMG).

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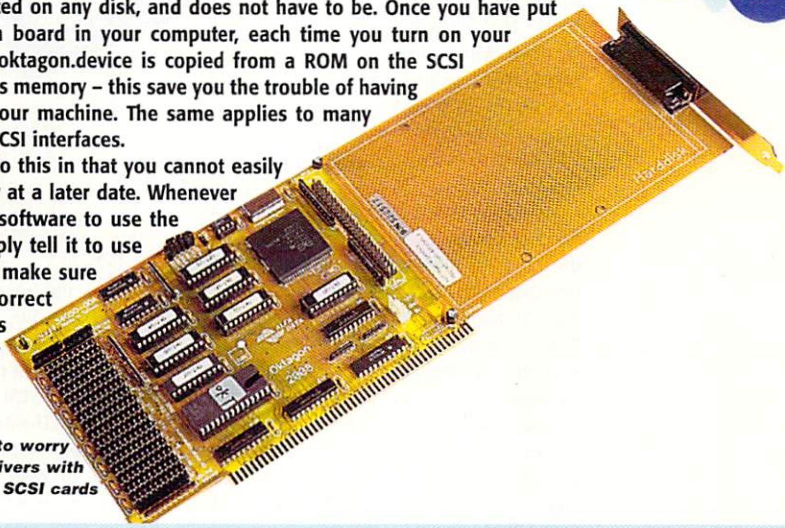
OKTAGON CARD

I have just bought myself an Oktagon card and was wondering if you could clear up a little confusion I am having using the board. The manual refers to an oktagon.device but I have looked everywhere on the disk and cannot find the file anywhere. I would have thought I needed to copy this into my devs drawer to allow other device drivers to access the SCSI device.

Ian Bell, Richfield

The main reason you cannot find the device is that the file oktagon.device is not loca-ted on any disk, and does not have to be. Once you have put the Oktagon board in your computer, each time you turn on your machine the oktagon.device is copied from a ROM on the SCSI board into the computer's memory – this save you the trouble of having to copy any files onto your machine. The same applies to many other boards that have SCSI interfaces.

There is a downside to this in that you cannot easily replace the device driver at a later date. Whenever you have to set up any software to use the Oktagon board, you simply tell it to use this *oktagon.device*, but make sure everything is case correct because some programs such as SCSImounter require this.



You do not have to worry about device drivers with many SCSI cards

ICON FIXATION

I was wondering if you could help me. I am having terrible trouble getting my icons to stay put. If I leave an icon out on the Workbench and snapshot its position, when I restart the machine the icon has forgotten where it should have been. What am I doing wrong?

Neil Simpson, Chesterfield.

Three possibilities spring to mind. Firstly, Workbench does not like icons being too close together, so it may let you snapshot the icons in place at first but when you come to run Workbench again, certain icons will appear as they were before. All you can do in this case is to rearrange the icons and resnapshot them, restart Workbench and see if it likes the new positions.

Another possibility is that the icons on the Workbench are not actually icons. The icon may not exist on disk and Workbench has created it when you have selected show all files. Therefore, when you select snapshot icon the position data cannot be saved to the icon file. In this case, you will have to create an icon for the file using either IconEdit or another such program.

All the icons on the screen are stored in a special file called .info files. The name comes about from the fact that the icon file has the same name as its accompanying program, but has the added file name extension of *.info* which tells Workbench it is an icon file.

There is a particular problem associated with the RAM disk icon that can confuse beginners. When you snapshot a disk icon the icon file called *disk.info* is generated and can be seen using the shell or a directory utility such as DOpus. The problem occurs when you reset your machine as this info file is lost, so the RAM disk reverts back to the default image and position. You need to lock the RAM disk in place by:

1. Snapshot the icon where you want it to appear
2. Give it any special icon image you want it to have
3. Copy the ram:disk.info file to ENVARC:
4. Insert *copy ENVARC:disk.info Ram: >NIL:* in your user -startup

From now on, every time you start your computer the disk icon you have set up will be copied into the RAM disk before Workbench loads. Therefore, when the Workbench does appear the RAM disk will be in the right place and have whatever icon image you like. Just remember that if you want to change the appearance or position of the icon you will need to copy the disk.info file into ENVARC again.

NO NON-DOS DISKS

I'm a young Spanish coder and have a problem I hope you can help me with. I want to protect a program I have written with some sort of pirate security. Can you explain how I can convert my DOS disks to a bootable NON DOS disk? I think it would be a good method to protect my program. What kind of program can I use to do it, and are there specific programs for the A1200?

Jose Manuel, Cartellon Spain

What you are wanting to do requires you to write your own track disk controller. This means you have to learn how to program the Amiga's custom chip which gives you control over the floppy disk drive, and this is no simple feat. If I remember right, the source code to such a track disk controller is available on Aminet, but I would not recommend you use this sort of copy protection.

Even though using NON-DOS disk does give you the benefit of protection against the casual pirate, your normal cracker – the major people involved with pirating and distributing the cracked copy of your program – will have no problems breaking your disk protection.

Using NON-DOS disks just creates more problems than are solved. Firstly, you are not going to make any friends from hard drive owners as they cannot install programs on NON-DOS disks onto their hard drives. The other downside is that if anything changes regarding how the Amiga accesses its disk drives, in the future your NON-DOS disk will not boot as the track disk controller you have written will not be able to cope with the new hardware.

Just look what happened when the A1200 first came out and, more recently with the new A1200s, with a floppy drive that had slightly different timing speeds. I have to say that at the end of the day, whether you use copy protection or not, people are going to pirate your software whatever you do.

CD SOLUTIONS

I own an A1200 and have been using a Power Quad CD-ROM player for the last 11 months, having had no problems with it using both CD-ROMs and audio CDs. All of a sudden, and without any reason whatsoever, I started getting a message that no disk is present in CD0, even though there actually is.

I have changed the original audio CD software with the MCDPlayer that comes with the AmiCDFS program (included on the May issue coverdisk), but this worked perfectly well with all the CDs I played. I have also tried, several times, to re-install the unit using the software that was provided with it, but although almost everything is copied in the right place, the problem will not go away.

I say almost because when the installation gets to the CD device preferences I get a highlighted 'squirrelscsi.device' in the 'installed devices' section, which I presume should be transferred to the 'CD ROM devices' on the right-hand side. However, all I get is a jittering pointer that will not respond, and a disabled save option, so I am forced to cancel out of the requester.

Could this be the problem? I do hope you can help me out as I do not want to end up with a £300 CD-ROM player in the bin!

Emmanuel Felici, Mosta Malta

You are right that you have to cancel out of the CD device preference program. This is probably the most important part of the installation process because at this point you are meant to tell the installer where on the SCSI chain your CD drive is located.

This is part of the Squirrel installer software, and has been written to make adding a CD drive as simple as possible. What would normally happen is that on the left side of the window in the CD device preference program you would have squirrelscsi.device highlighted, and on the right side you should have a list of all the CD-ROM drives connected to your SCSI interface. In your case, there should be just a single entry – that of the Power CD drive. When you press save, this automatically sets up the DOS device driver, so the CD-ROM is mounted each time you re-boot your machine.



The problem you have sounds like it is hardware related – either the CD-ROM drive or the Squirrel interface itself – because normally, if the CD preference program cannot find the Squirrel interface the mouse movement should not be affected. There are a couple of things you should check. Firstly, if you have removed and refitted the Squirrel recently it is possible you have damaged some of the pins in the PC slot. This is very easily done because the pins are very delicate, and if the interface is not completely flush when you insert it, the corner pins can be easily bent down under the interface.

If this is the case, get yourself a torch or bright lamp and a long jeweller's screwdriver and, with a bit of patience, realign the pins. The pins are fairly delicate and take very little pressure to bend back into place, so be gentle with them. Once you have done this, carefully insert the interface and recheck that all the pins are still aligned correctly.

One thing that would be worth checking is what the SCSI ID number of the CD-ROM drive is, and what the currently existing DOS driver is expecting. Normally, when you use the CD device preference program and press the save button, it writes out a small text file called *cd.device.config* to the devs directory. In the text file, one line tells the CD-ROM device what SCSI device to use and what SCSI ID the CD-ROM drive is. If you set the CD-ROM drive's SCSI ID to match the number in this text file, it may allow your machine to read the CDs again, and this would explain why you are getting the 'no disk in CD0' error message. Unfortunately, though, this does not explain why the CD device preferences is not working correctly, or why it makes the mouse pointer go all jerky.

One final check you could try is using SCSIMounter, which you should have got with the installation. This program allows you to check what is connected to any SCSI interface, even though the tool types should be set up for the Squirrel interface. If you run this and every entry comes up with '<no device present>'. then I would think there is a problem with the CD-ROM drive. If, on the other hand, every entry reads '<inquiry failed>' this would point to there being a problem with the Squirrel interface, or possibly the actual PC slot itself.

MIX AND MATCH MONITORS

I have recently acquired a VGA monitor, and have connected it to my Amiga, but I am having problems getting the display drivers to work. I have successfully used the PAL and NTSC drivers on my old monitor and TV, but when I try to set up drivers for the VGA monitor I have the following problems:

1. The descriptions of the drivers do not make sense. They have a frequency in the name, for example Euro 35Hz, but when it is selected the description on the left has a different frequency.

2. I seem to have three sets of drivers – one set on my hard disk in devs/monitors and storage/monitors, one set on my storage disk, and a smaller set just PAL NTSC on my WB boot disk.

3. Some of the drivers on the HD work (sort of). These are Multiscan and one of the Euro modes, but the screen width is reduced to 636 wide for Multiscan and around 500 for the Euro mode, although the overscan editor says that the Multiscan is 640 wide.

4. The VGA-only icon does not give any more choices but if not made active, or put in devs/monitors, the drivers mentioned in point in three will not even sync.

5. The drivers on the storage disk all seem to be the correct size, but will not sync on my monitor.

6. The drivers on the WB boot disk are only TV drivers, but have different names, e.g. 640 x 256 instead of Hi-res. (This is just a curiosity as I need VGA drivers not TV drivers)

I have tried to use MonEd from the May issue of *Amiga Computing* but this will not change the size of the display, and also crashes my machine if I change the H-sync rate too much. Do you know what is wrong and what I need to fix it?

Richard, RICHARD@shuttletech.com

There is one thing you should do before you buy anything for your computer – check that it will work correctly with your hardware. If you go out and buy yourself any old VGA monitor, or printer for that matter, particularly if it is second hand and not a well known brand, the likelihood is that you are not going to have the correct drivers.

With monitors you need to check that the monitor drivers you have work at the correct horizontal and vertical sync rates. Generally, the Amiga monitor drivers have a vertical range of 45-80Hz and a horizontal range of 15-30KHz. The Amiga's vertical range is fine but the problem comes with the horizontal sync rate. Most new VGA monitors have a minimum horizontal scan rate of 31KHz, which is at the edge of the Amiga's ability, and really you need one that goes down to 29KHz to be able to use many of the AGA monitor modes. You can find out what scan rate a driver works at by loading the screen modes preference program and looking at the figures in the information box.

With reference to your questions the answers are as follows:

SECOND HAND CD

I will soon be getting my hands on a second-hand Amiga 500 and was wondering if it is possible to connect the Reno portable CD-ROM to it. I ask this as I would rather purchase this than a normal CD-ROM drive as it seconds as a portable CD player.

Rachael Webster, Middlesex

The problem you are going to have is finding a SCSI interface for your A500. Seeing that the A500 is really an old machine now, there is very little left in the way of hardware and even software support.

Your best bet would be to try and get a second-hand GVP hard drive that plugs into the side expansion slot. As the GVP has a SCSI interface built in you could connect the Reno to the SCSI interface as long as you get hold of the correct leads.

The hardware is only half the story because you need to make sure you have a Workbench 2.04 machine. You need to get hold of the correct CD handler software such as AmiCDFS, and for this you need the more recent version of the operating system. Once you have got hold of this, you will be able to configure the CD software to use the Reno through the GVP's SCSI interface. You should also keep in mind that you will get the added advantage of a hard drive and even the possibility of extra memory because the GVP has a few Simm sockets built into it.

acas

Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your software or hardware to behave in the coreect manner?

Well, calm down and swap the axe for pen and paper, jot down your problems, along with a description of your Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. Alternatively you can e-mail us at ACAS@acomp.demon.co.uk

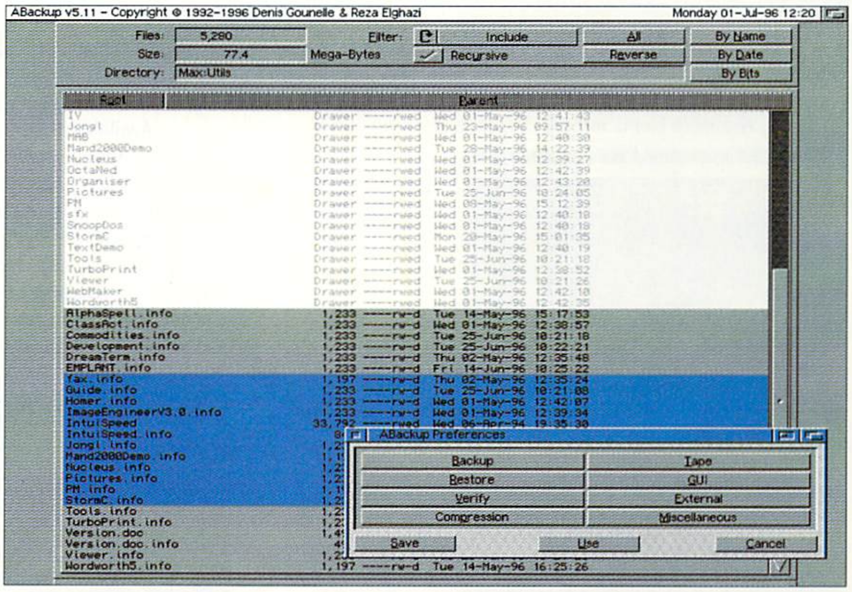
BELEAGUERED BACKUPS

I too have had the same problems as Mr Trottier (issue 100). The solution is not to use a backup program! Any time I have tried to use a backup program to backup a complete hard drive and then restore it, I have had problems with commercial software.

What you can do instead is leave your original drive connected and get whatever cables and splitters you need to connect both the old and a new drive, making sure they have different addresses. Use HDToolBox to setup and format the new drive. Then using the Shell type *copy "original disk": "new disk:" all* and everything will be copied from your existing drive onto the backup drive. After checking your program to verify that they work, disconnect the old drive. This method also works for backing up to a Syquest drive.

Glen Feely, Kenosha USA

I suppose this is a reasonable way of going about things if you are upgrading to a larger hard drive, as long as you are the sort of person that is happy playing around with cables inside their machine. I would recommend the shareware program ABackup as one of the best hard drive backup programs around. It is now on to version five and has many years of development put into it.



One of the oldest and most advanced hard drive backup programs around, ABackup is well worth getting

1. I am not quite sure about the reasoning behind the names of the various monitor drivers but, as you have spotted, they have no real relevance to the monitor driver itself. Really the only ones you want are DblPAL and MultiScan.

2. You have a storage drawer so you can keep any unused monitor, DOS, keymap and any other unused drivers out of the way. Really, you should only have one copy of a monitor driver on your hard drive either in the devs or storage drawer, as there is no reason to have duplicates. The drivers on the storage disk will be the same as the ones you have on your hard drive, so you can ignore them. The Workbench 3 disk only has PAL and NTSC drivers so to save as much space as possible, copy across any extra drivers as you need them – even though you should not be trying to do anything clever with Workbench unless you have a hard drive.

3. The reason that these two work is that the horizontal scan rate is 30KHz so the monitor can just about sync down to this. As a consequence, the screen width the monitor can produce is reduced.



Make sure you check you have the correct monitor drivers before getting any old VGA monitor

4. What the VGA-only driver does is a little bit of a mystery, but if it is helping you use certain monitor modes, then it must be doing something with the scan rates – although this does not show in the display preferences.

5. As I have mentioned before, the drivers on the storage disk are no different to the ones you already have, so you will, unfortunately, not have any more success with these than you did with the ones on your hard drive.

6. As standard, when you boot your machine and there are no monitor drivers available, the operating system resorts to using its built-in default driver that is either PAL or NTSC driver. The default driver does not come with the screen mode names setup so all you get is the resolution information.

Unfortunately, there is not much else you can do. I would suggest you retry using MonEd and raise the horizontal scan rate, but this is always going to be a tricky thing to do without reducing the size of the existing screen. If the Amiga custom display chips are asked to start shifting screen data faster than they are able, all that will happen is that the actual screen width starts to be reduced as the DMA channels have to work harder.

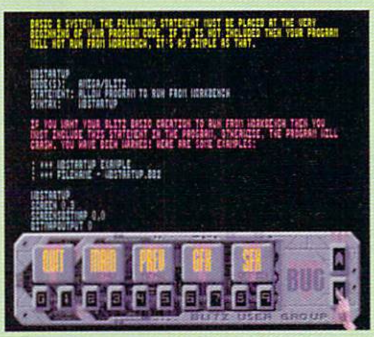
public sector

Perhaps it's just the normal summer lull in PD submissions (I am writing this in late June), but this month's shareware sack was not quite as bulging as it might have been. Fortunately, the quality of submissions has not trailed off in any way as this month's selection clearly shows. Of particular note, you will find below some superb games, a tremendously useful hard drive backup program, and an absolutely indispensable computerised version of that modern day cartoon superstar, Homer Simpson.

Sharewaremeister **Dave Cusick** bids you dine from the Platter of public domainity and sup from the chalice of cheap and cheeriness

BUG #3

Produced by: Blitz User Group
Available from: SeaSoft



Plenty of tips and hints for Blitz coders

The Blitz User Group disk magazine is a curious little chestnut. It's immaculately presented through a stylish and intuitive interface (presumably custom-written in Blitz), but it is seemingly written by just one poor bloke, slaving away over the keyboard late into the night.

Articles include programming tutorials at both basic and advanced levels, brief news and review sections, and tips on getting into various parts of the computer industry. There's also a club section which includes details of second-hand software for sale, a penpals listing (although it's a little bit empty), and so on. Content-wise, the stuff on offer here is not dissimilar to that found in the various Amos coding diskmags knocking around the public domain. However, unlike the majority of diskmags, standards of spelling and grammar are thankfully high.

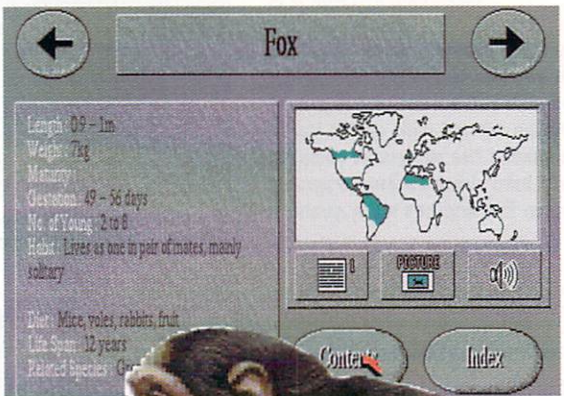
As with all specialist disk magazines, it's all completely lost on anyone who isn't fanatical about the subject matter. However, if you are a keen Blitz coder then there should be plenty here to get your teeth into.

THE WORLD OF ANIMALS

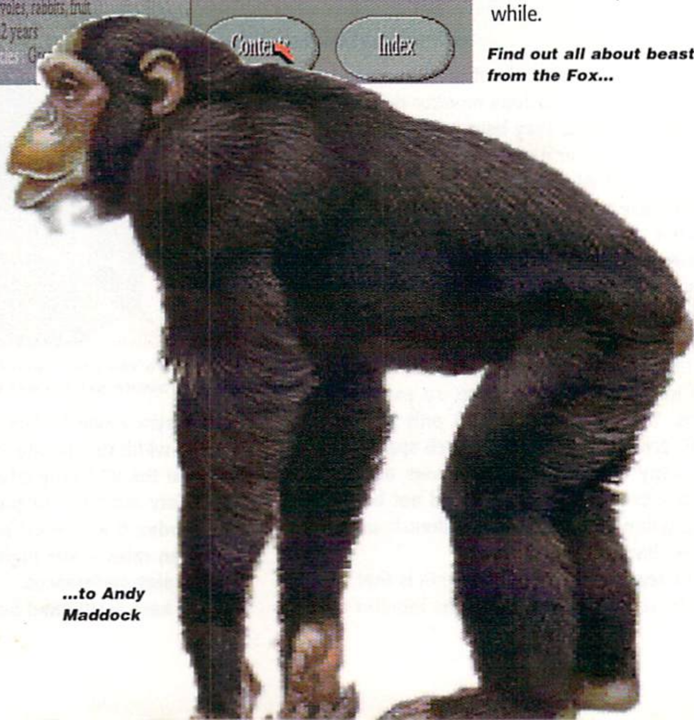
Produced by: C. O'Connor
Available from: OnLine PD
Disk Nos: OE26 A/B

Unsurprisingly, The World Of Animals turns out to be an educational program which attempts to make full use of the Amiga's multimedia capabilities to hold the interest. Rather more surprising is the fact that unlike many similar offerings, it isn't at all bad.

From the main menu the user can select the animal of their choice from a curious assortment including fox, bear and chimpanzee. This brings up a screen full of facts and figures on the beast in question. A small map of the world highlights the areas where they can be found. At the click of a button a text file can be summoned, containing a host of interesting details about the animal in question. Another button brings up a colourful picture, and you can even hear the animal by clicking on a sound button. Whilst there are only around ten beasties included on the World Of Animals disks, and they are rather an odd assortment, this is nevertheless an informative and nicely presented package which is sure to appeal. Running it from floppies presents a few problems of a disk-swapping nature, but install it on a handy hard drive and it'll keep the kiddies occupied for a while.



Find out all about beasties from the Fox...



...to Andy Maddock

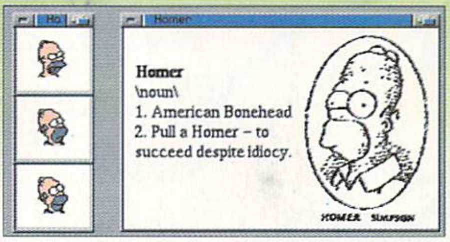
UTILITY of the month

Homer 1.6

Programmed by: David Swasbrook
Available from: Aminet
(as util/wb/Homer15.lha and util/misc/Homer16u.lha)

Whilst it was no doubt a terrific money spinner at the time, one has to wonder whether whoever took the decision to release that dire 'Do The Bartman' tune a few years ago knew exactly what they were doing. It was my first real experience of The Simpsons and, like many others I am sure, I instantly decided to give them a wide berth in future. As a consequence, my eyes were only recently opened to the full extent of the cartoon's brilliance. Far from being aimed at children as the uninitiated observer might expect, The Simpsons is an often hysterical, constantly sparkling satire on modern life American style. Sky TV viewers will no doubt look forward to the weekend Simpsons double bill with much enthusiasm, but for those of us who must depend on terrestrial TV the world has, until now, been devoid of Simpsons, unless some benevolent individual has seen fit to amass episodes on VHS tapes for our enjoyment. Fortunately in the autumn, rumour has it, The Simpsons will make a welcome appearance on BBC television. Hurrah!

Anyway, as those who have seen The Simpsons will be aware, the star of the show is not the mischievous little whippersnapper Bart, but his balding father Homer. As with all the other characters in the series, Homer is frighteningly well observed and almost eerily similar to lots of people you know. He also gave the world such magnificent phrases as "D'oh!", "Mmmm... forbidden doughnut", "Mmmm... beer", and indeed "Mmmm... <insert food/drink item of your choice here>." Homer is, it must be said, a God, a monument to father- and husbandhood in contemporary western society, a being truly worthy of veneration.



Homer in a variety of moods. Mmmm... purple doughnut

So imagine my joy one evening a couple of weeks ago when amongst the Aminet recent uploads list I spied the word 'Homer'. Intrigued by the cryptic description offered alongside the archive name, I hastily downloaded it and the colossal version 1.5 archive also required. At long last I had my very own Homer.

Yes indeed, this program offers you your own personal Homer Simpson who will sit in a little window on your Workbench screen nattering away about all manner of things, as well as occasionally burping and "D'oh!"ing. It's totally and completely useless and will eat around a megabyte of hard drive space, but it is utterly indispensable for the Simpson fan suffering withdrawal symptoms. And if perchance you should ever tire of the copious sound samples included in the archive, you can even supplement Homer's repertoire with samples dredged off the Internet (try http://www.snpp.com/ for lots of links to Simpson sample archives). Stick Homer on your hard drive and life will be worth living again.

Hilt II

Programmed by:
Mark Sheedy and Andrew Cashmore
Available from: Norwich PD
Disk no: FDG-012 (2 disks - £3.95)

Hilt II is a beautifully presented and hugely absorbing strategy game. The objective of this space age role-player is to successfully complete either single missions or entire campaigns using a team of one to six characters selected from eight to suit the demands of the particular mission. Each character excels in different areas, so whilst you can actually pick the same character twice in your party, this isn't necessarily a good idea. Characters are rated in several areas including combat ability, intelligence, dexterity and strength. Once you've selected your party you can arm them to the hilt, as it were, in preparation for the gruelling mission ahead.

The game is turn-based and is entirely mouse controlled. During a mission the screen displays a section of the map and a number of easily identifiable icons through which the characters can perform certain actions such as picking up and dropping objects. Movement is accomplished by simply clicking on the map, providing the currently selected character has sufficient Action Points left. Firing weapons and using objects also requires the expenditure of Action Points.

Included on the disk is extensive documentation, including a walk-through tutorial, a complete game reference document, and a helpful guide to the weaponry available. The latter is written in an entertainingly atmospheric manner, frequently including details of when and where a type of weapon was first employed, and where and by who the weapon was manufactured. This adds considerably to the mood of what is already an involving role-playing adventure game.

There is also a two-player mode in which each player controls up to 16 characters and the objective is to annihilate the opponent's forces.

Plenty of missions and a few campaigns are included on the disk (complete with scene-setting mission briefings), and because some of the missions feature randomly generated maps, there should be enough here to keep even the most ardent action adventurers occupied for some time.

Hilt II runs perfectly well from floppy disk, but it's also easily installable on a hard drive. It's Licenceware too, which means the authors get a percentage of the sale fee so that once you have purchased the disks from an official distributor you have nothing more to pay. For just four quid, Hilt II represents excellent value for money and comes strongly recommended.

Hilt: Walky-blasty strategy action of the highest order





It's worth taking your time in the impressive armoury before embarking on a mission

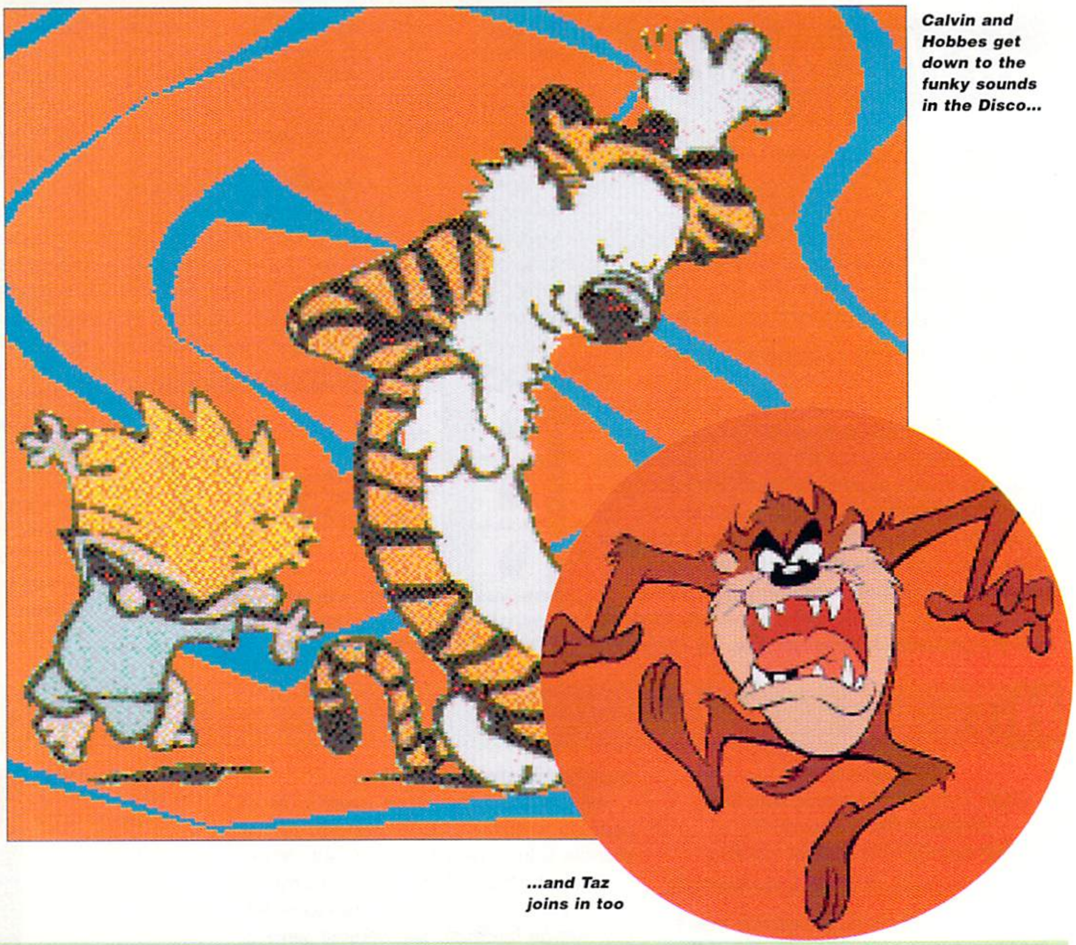
DISCO AGA

Produced by: Drifters
Available from: OnLine PD
Disk No: OX-333

The best demo this month was this strange effort – although admittedly it wasn't up against much quality opposition. A crisply sampled voice welcomes you along to the disco, and then a rather groovy little tune kicks in drawing heavily on '70's disco influences. We are then treated to what might kindly be called a stylised animation (or unkindly called a jerky animation) of Calvin and Hobbes strutting their thang on the dance floor. All very nice, although probably a copyright infringement too.

Then it's onward through a procession of jerking cartoon objects ranging from rockets to indistinguishable collections of black and white characters. The tune happily churns away in the background, possibly unaware of the less than spectacular visuals flashing semi-rhythmically across the screen.

All this carries on for a couple of minutes, and then the demo abruptly stops. The screen slickly shoots into a distant blob as if a television set had been switched off, there are a few moments of silence, and the whole thing starts again. Still, the tune isn't at all bad.



Calvin and Hobbes get down to the funky sounds in the Disco...

...and Taz joins in too

ARGUS

Programmed by: Craig Burlock
Available from: OnLine PD
Disk No: OG-244

Shoot-'em-up games have traditionally relied on bizarre plots about lone fighter pilots being mankind's last hope in the face of imminent alien invasions. Argus has possibly my favourite shoot-'em-up plot yet. Earth has a surplus of B grade fighter pilots and you are one of them, so you've been despatched on three suicidally difficult missions to see how much damage you can do to the aliens before they blow you away.

If you like a challenge you will absolutely love Argus – even with a hatful of lives it is extremely tough to stay alive for more than a couple of minutes. Far from being frustrating though, the absurdly high difficulty level merely adds to the enjoyment.

Argus boasts graphics which manage to be attractive in a clunky, cartoony kind of way, some slick scrolling, and suitably beefy sound effects such as laser blasts and explosions. There are a whole host of aliens to destroy, ranging from weedy one-hit wonders which attack in formation to nasty mid-level bosses with devastating weaponry at their disposal. There are probably end-of-level bosses too, but I wouldn't know, being far too inadequate a fighter pilot to get that far. To help you annihilate all these evil beasties, there is an assortment of weapon power-ups hidden inside the little bunkers which are littered across the landscape. With such awesome firepower at your fingertips, at least you stand a chance against the swarming alien hordes.

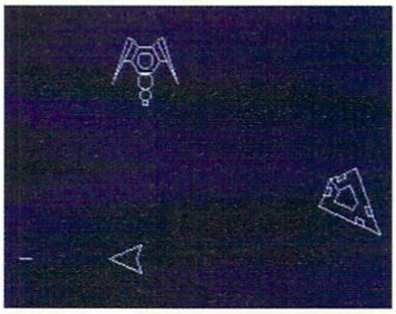
Possibly not since Xenon 2 has up-the-screen mass destruction been so much fun. Argus might not boast the catchy theme tune, parallax scrolling or handy upgrade shop, but it's every bit as addictive. To cap it all, it was written in the much maligned Amos Professional. Do yourself a favour and order a copy now, and don't forget to send the author the ten aussie dollars shareware fee he richly deserves.



Argus: harder than an extremely hard thing in a bag

OUTLINER

Programmed by: Scorpius Productions
Available from: SeaSoft
Disk No: FDG-13 (£2.95)



Outliner: not quite Asteroids but a good game in its own right

An astonishingly high number of PD and Shareware games are essentially variants of classic arcade machines, and Outliner is no exception. Owing a considerable debt to Asteroids (not least in graphical style), Outliner is an enjoyable blaster for one or two players. It also has a few nice tricks up its sleeve.

There are a number of different game modes which crank up the interest level considerably. In the basic one-player mode your task is simply to fight your way through wave after wave of alien spacecraft. There's an Onslaught game in which the odds are stacked hopelessly against you, which can also be played by two players. Then there are a variety of two player modes, including a particularly inventive one in which the second player decides which enemy craft should attack the first player's lone space fighter. Although the in-game graphics understandably have a distinctly 8-bit quality about them, Outliner is nevertheless neatly presented and the introduction and menu screens are clear and uncluttered. In play, the controls are refreshingly responsive, although the feel of the craft is rather different to a traditional Asteroids clone.

RECORDER

Programmed by: Oliver Grimm
Available from: Aminet
(as util/cli/Recorder.lha)

An interesting little utility, which at 3K is approximately half the size of its accompanying documentation, Recorder allows you to record system events such as key presses, mouse button presses and mouse movements. These can be saved to a file for later playback. In effect, therefore, Recorder makes it possible to automate even those tasks which you couldn't automate through ARexx. For instance, you could record the process of opening and closing windows to dig down to a deeply nestled file, then set up a program like Toolmanager so that by selecting one of the options in your tools menu, that deeply nestled directory window could be opened – perhaps with Show All Files By Name selected for good measure.

Using Recorder is extremely straightforward anyway, but the Readme.doc is helpful not only in explaining how the program should be used, but also how it works and what use it might be. So if you frequently have to carry out tedious operations on your Amiga, get hold of Recorder now and save yourself lots of time and trouble.

PLANET TELEX

Norwich PD
43 Motum Road, Norwich,
Norfolk NR5 8EH
Tel: 01603 504655

OnLine PD
1, The Cloisters, Halsall Lane, Formby,
Liverpool L37 3PX
Tel: 01704 834335

SeaSoft
Unit 3, Minster Court, Courtwick Lane,
Littlehampton, West Sussex BN17 7RN
Tel: 01903 850378

ANYONE CAN PLAY GUITAR

I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable public domain, shareware or licenceware, if you feel it's of sufficient quality to merit coverage then stick it in a jiffy bag or padded envelope and send it in with all haste. Although Public Sector receives too many submissions to cover them all, I promise I'll at least look at your work – even if it's yet another Lottery program or Klondike cardset. It does make my job a lot easier though if disks are clearly labelled. Please also include a cover letter detailing the disk contents and price, and giving some basic instructions. The magic address is:

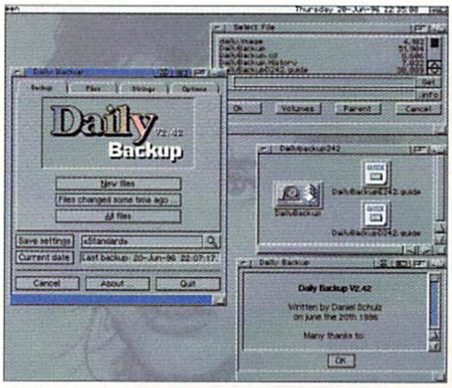
Dave Cusick, PD submissions
Amiga Computing, Media House
Adlington Park, Macclesfield SK10 4NP

DAILY BACKUP V2.42

Programmed by: Daniel Schulz
Available from: Aminet
(as disk/bakup/DBackup242_MUI.lha)

As every hard drive owner knows, it really is essential that a hard drive is backed up every now and then. If the unthinkable happens and your drive suffers a crash, everything on it could be lost. Losing the programs there would be bad enough – think how long it would take to reinstall and possibly reconfigure everything from the original floppies. But imagine losing all your own files, be they documents, images, source code or whatever. It's a stomach churning thought.

However, in these days of ever-increasing hard drive sizes, backing up can be a real pain. My Amiga has a relatively small 210Mb drive, and backing that up takes long enough – my heart goes out to owners of Gigabyte drives (although only for a few moments before jealousy sets in...) There are certain ways of making the backup process easier. One is to store all your important data on a separate hard drive partition, which is the only one you update regularly. But even with this arrangement, it's very easy to leave it several weeks between backups, and the amount of data that would be lost if the partition crashed after that length of time would be colossal.



Daily Backup: a godsend

A solution is offered by Daily Backup. As the name suggests, the program is designed to be run once a day, whereupon it will scan selected paths on your hard drive looking for new or updated files. These can then be backed up to floppy for safe keeping.

In use, Daily Backup is as slick as you'd expect any MUI application to be. The interface is as attractive as can be, and the program makes full use of AppWindows so that source directories can be dropped onto the program window. Handy options include being able to choose whether or not to pack the backed up files (and if so, which packing method to use), being able to filter out useless files such as those ending in .info, and filtering by filename patterns. You can even opt to append a number to the end of backed up files, so that, for instance, you could later restore any one of six or seven different versions of a file even though only the newest version is still on your hard drive. In short, Daily Backup is just brimming over with extremely useful features.

The program obviously requires a battery backed clock, but other than that all you'll need is Workbench 2.04 and MUI 3.1 – both of which anyone using their Amiga for anything remotely serious ought to have by now. It would be a foolish hard drive owner who overlooked this gem.

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M084 C64 GAMES MUSIC
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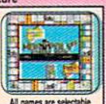
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G690 THE REAL POPEYE 64 (a500 1.3 only)
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G735 OVERLANDER Brillant arcade MOON ALERT
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G772 UN-SENSIBLE SOCCER very similar to Sensible scoccer games. RECOMMEND

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G773 FRUIT MANIA -Brillant Fruitmachine.
G774 TRICKLE TREAT -like DOOM on the PC
G775 FOOT-BALL MANAGER-new version
G782 SOLO ASSAULT 3D like Wing Commander
G783 SEED OF DARKNESS-Brillant graphic adven
G784 NANO FLY Superb explore game RECOMMEND
G785 THE GREAT GOLD RAID- very addicted
G787 ANT WAR V1.9 (LATEST) not 1.3
G788 ZENO-MORPH -Great grahic
G789 TASK FORCE very good MIND SHADOW clone
G790 GREEN FIVE Amazing 3D graphic like
G791 PROFFESIONAL BINGO CALLER
G792 MARTIAL SPRIT like Street fighter II
G798 6 EXCELLENT CARD GAMES collection
G809 BLITZ 2 fast action shooting games
G810 EXIT 13 Brillant puzzle
G811 TEMPORAL MISPLACEMENT-graphic adventure
G812 ADAY AT THE RACE-V.Goodhorse racing games
G820 BOULDER ORIGINAL with 80 level
G821 BOULDERDASH cave/level Construction kit
G822 BOULDER COLLECTION 2/3 160 level (2disk)
G839 BOULDER PACK with 640 level on 8 disk
G860 ALIEN NET WORK-new Spacing invader
G862 BATTLE FORCE excellent text adventure.
G863 GNU CHESS the best chess with 10 level
G868 SWORD OF YIGG Graphic adventure
G867 POWER-TETRIZ for 1 or 2 player
G868 SUPER SMASHING TETRIZ
G870 CHESS II & CHECKER One of the best around must for all CHESS or CHECKER player
G871 GRAVITY FORCE 2 1 or 2 player thrust clone
G872 SCHNEBITZ Commercial quality puzzle games
G875 DELEXE GALA v2.3(new) add new feature & bouns gamme + 2 player RECOMMEND. get it now
G876 THE KRILLIAN INCENDENT like ELITE2/Epic
G878 QUANTUM-Maze colect & escape type games
G879 RAG TO RICHES - like MONOPLY

NEW 101 GAMES PK 3

New 101 pack 3 contains over 100 games, runs on all Amigas, only £11.99 offer buy any 2 packs together & receive a free £4 token for use with next order. This offer cannot be used with any other offer current & subject to condition apply.

G884 WIPE OUT-mindless blasting gamse
G885 GODZILLA Another shootem up
G886 SUPER MEGA FRUIT- All new Fruit Machine
G888 DRIVING MANIAC 3D (fill vector like Indi500) car racing- very fast. RECOMMEND
G889 PLANET FALL - Luner Lander clone
G891 BUCK TOOTH ADVENTURE Very good multi level shoot/collect em up RECOMMEND
G892 PENGO 2- Maze type games. Recommend
G893 SUPER OBLITERATION Blast asteroid very similar to PANG 2 lot of weapon RECOMMEND
G894 SUPER INVASION II -New SPACING INVADER
G897 THE SHEPERD Brillant POPULUS clone. REC
G898 ALIEN GENOCIDE (2) Shoot aliens set in space.
G899 PUCKMAN. One of the better PacMan arround.
G900 SUPER-BATTLE ZONE.3D (not WB1.3)
G901 M*A*S*H a (ANTWAR 2) play very similar to LEMMING & WORM, with load of Weapon (Brillant)
G904 LAST SOLDIER (2) multilevel platform games
G905 CBBERTECH (2) exclent ALIEN BREED Clone
G906 HANGMAN any one for a game?
G907 ACE SPACE nice Platform games
G908 COLOURMANIA slide/Klatriz type puzzle games
G910 HARRY-HADDOCK- Brillant platformer games
G912 MANGLE FENDER -Brillant, Smash up other car/tank ect to win. extremly addicted. get it
G913 ARCADE GAMES CLASSIC Vol 1 & 2 (2d)
G914 HELICOPTER-play like Desert strike
G915 COW WARS. Very addicted 2 player games
G916 ISLAND -Play like Monoply.
G919 COP THE LOT Pro Latest Lottery preditor
G920 LOTTERY PROFFESIONAL This version use
G921 MONOPLY. (board games) The best version
G922 JET WILLY 3 - excellent platform games
G923 FLAMMING ENGINE-Superb car racing
G924 POWER MACHINES. Grahicaly brillant shoot
G925 SUCIDE-MACHINE Operation wolf style
G926 ZAXXON 3D Superb C64 3D blaster games
G927 BOING V3. Great platformer. recommend
G928 PUNTER-Animate horse racing games
G929 ARCADE JIGSAW (2d) include LION KING
G930 WHEEL CHAIR GLADITOR-Very fun to play
G931 NIMBLE-Brillant New arcade puzzle.
G933 BLACK DAWN 3- THE NEW BEGINNING (2) Superb 3D adventure. RECOMMEND
G934 R3 ROCKET (NEW)very good rockets games
G935 BATTLE SHIP- the finest PD version
G936 LAST LAP - Fast car racing

GAME HINTS & CHEATS II

Play your favourite game for age? but can't get to the end of level or game? Having problem with some games? 5 disk pack with 1000s of games cheat/help/level code action replay poke etc., should help you finish many games – suitable for all Amigas only £4.95.
Update & release on 28 July '95

EDUCATION

E001 KID PAINTS. superb paint special for kids
E002 COLOUR IT brillant computer colouring book
E003 TREASURE SEARCH find the hidden treasure.
E004 LEARN & PLAY I(not A1200)many maths & games
E005 LEARN & PLAY II more education programes
E006 SPANISH TRANSLATOR Spanish<> English
E008 MR MEN (WB1.3only) brillant story adventure
E009 ASTROMY tutorial on solar/star ect system
E010 SIMON & SPACE MATHS maths & simon games

E011 EDUCATION PACK 1

pack with dozens of education programs ranging from maths, science to educational games recommend suitable for any Amiga. 5 disk pack only £4.95

E019 DINOSAURS teach you all about Dinasaour
E020 WORLD DATABASE require (2+meg)
E021 STORY LAND II interact puzzle games rec
E022 LANGUAGE TUTOR teach you 4 language
E023 TALKING COLOURING BOOK talking Dpaint bril
E024 EASY SPELL II improve your kid spelling
E025 SCRABBLE require 2-4player. brillant
E026 WORDS can help you solve the crossword
E027 OSWALD Very colourful large cartoon game
E030 EVOLUTION breed your own hybrid
E031 IQ TEST + IQ GAMES pack 1 excellent
E033 TYPING TUDOR very good typing tudor
E035 CHESS HELPER help/teach how to play
E036 BASIC TUDOR learn about Amiga basic Prog

EDUCATION & 21 GAMES PACK

Collection of the very best of education programs and a 21 games pack, a very popular combination for kids (run on all Amiga) 5 disks pack only £4.95

E038 AMIGA TUTORIAL 7 part tutorial
E039 COMPUTER CARE how to care about AMIGA
E040 GUIDE TO LOWER BACK PAIN tutorial the spine & how to avoid back pain. (recommend)
E041 KID ALPHABET display all alphabet letter
E042 FRACTION & SILOUEST maths & games excellent
E043 MATH MASTER teach/test you more on maths
E044 STEAM ENGINE V2 graphic & tutorial
E045 PETROL ENGINE tutorial & animate graphic
E046 GAS TURBINE ENGINE tutoria & anim graphic
E047 STIRLING ENGINE tutorial & anim graphic
E050 DREAM FOR ANGEL explain the meaning of dream
E051 INVISIBLE WORLD brillant recommend
E052 FISH TANK turn your amiga into a FISHTANK
E054 DEMOLITION MISSION simple game for kid
E055 WORD POWER solve crossword puzzle ect good.
E056 WORM HOLE simple game ideal for children.
E057 APPLE CATCHER catch falling apple brilliant
E058 CROSS MAZE & CRYPTOKING 2 excellent kid games
E059 VERB QUIZ find the word & it related. Bril
E061 KING JAMES BIBLE (4d) complete bibles excel
E066 TARROT clairvoyant in a instance
E068 GALLOW fancy a games of hang man?
E070 MATH DRILLS teach all basic math skill Vgood
E071 ERROR INFO give info why your amiga crash
E075 WORLD-WAR 2 graphics tutorial on WORLD-WAR releate program eg simulate Starprobe/ molecube/ ect
E076 SCIENCE an excellent collection of science ideal for all who interesting or studies in science recommend. this pack come on 4 disks
E080 KIDPRIX great children paint programme.
E081 ASTROMY PACK- This is a mazing collection of programe relate to astromy. can help to locate certain or star position ect. must for anyone who studies astromy or hobby. great (4DISK)
E073 PICTURE & LETTER learn to reads- first step
E074 AMIGA BEGINER GUIDE tutorial on Amigas
E085 NODDY PLAYTIME demo >Very good
E080 KID PIX more excellent paint programes
E081 D.T.P FOR KID easy to use, excellent
E092 SING A RYHMES sing a song
E094 HIGH WAY CODE TUTOR question on highway code
E096 READ & LEARN (2D) THREE LITTLE PIGGY Story
E097 BACK TO SKOOL vol 1 collection of the best
E098 BACK TO SKOOL vol 2 in education programe
E099 BACK TO SKOOL vol 3 & games. RECOMMED
E100 LITTLE TRAVELER imfomation on world wide
E101 WORLD GEOGRAPHY world with map & text.
E103 DISCOVERY OF THE ATOM. tutorial on the Atom (2D)
E104 DESK TOP GUIDE TO MUSIC(3D) guide & tutorial
E107 TRUMPTY FIREWORK ALPHABET Very entertening way to teach your child the ALPHABET
E108 HOW TO DELOVOPE PHOTO 1 (2) Excellent
E109 MR MEN OLYMPIC (2D) many event to complete
E110 CULT TV DATABASE (2D) Info on early TV series
E112 HOW TO DEVELOPE PHOTO 2 (2) delevope your own.
E115 ELETRONIC WORLDS(3D) Complete KJames BIBLES
E116 HOW THE EARTH BEGAN-theory how the BIG BANG explode and create all the star & galaxy
E118 WORKBENCH 2 tutorial on Work Bench 2
E119 DINO WAR Quiz on dinosaurs
E120 JUNIOR MATHS Great learning aid for teach kid on the math subjects. RECOMMEND
E121 PICTURE PUZZLE brillant JIGSAW type games
E122 WORD FACTORY Brillant, teach kid words

KID DISKS 1,2,3,4,5

Excellent collection of education programs. Ideal for teaching kids various subjects while retaining the fun & game element. 5 disks only £4.99 or order seperately for only 99p per disk. Order Code KID DISK & No. 1-5

E125 JURASSIC PARK lots of info on dinosaurs
E126 CHILDREN SONG 2 contain 5 excellent song
E127 MING SHU (A500 only) Bril Chinese Astrologgy.
E128 ASTRO 22 PRO.V3-The latest astrology program that accurately calculates the position of the planet, eclipe, zodiac position etc. Recommend
E130 FRENCH VERD TESTER should help you with french.
E131 CULT TV DATA BASE II (2 DISK) info on early TV
E132 WORLD HISTORY BOOK
E133 LITTLE TRAVELLER II (2) Infomation on world wide
E134 X-FILES-Guide to the TV series very interesting
E148 CHESS & TUTOR - FULLteach you how to play chess
E150 INTERNET-FULL guide to internet & superhighway
E161 CLI & SHELL TUTOR (help) Ideal for beginner
E162 DELUXE PAINT GRAPHIC TUTOR V 3 & 4 RECOMMEND
E163 JAPANESE - teach you the japanese language
E164 PAINT IT (not A5001.3) latest COLOURING BOOK
E165 KEY BOARD TRAINER An excellent tuping tutor.
E166 WORD POWER- spellcheck/crossword solver/teach
E168 CROSSWORD CREATOR-design crossword
E169 CHESS II & TUTOR brillant Chess II games
E170 HISTORY OF AVIATION Vol 1 Execllent disk
E171 CHILD FAVOURITE-Education prog
E172 ANIMAL LAND-Learn about animal
E175 FRANTIC GUIDE TO COMPUTER(2D) brillant & funny
E177 CYBER PUNK 2 for cyberPunk freak only
E178 STAR-TREK & STARTREK NEXT GERENATION GUIDE THE COMPLETE GUIDE COME WITH HUNDRED OF SCREEN SHOTS TAKEN FROM THE STAR-TREK SERIES. SUPERB.
E181 SIGINTURE CREATOR customise your own siginture.
E182 VIRUS WORKSHOP V4 comprehensive guide
E184 IMAGINES VIDEO 2disk
E185 WORKBENCH 2/3 GUIDE On line help/Complete
E210 LEARN & PLAY 3 Latest Education & Games
E240 BARNEY THE BEAR GOES CAMPING (2d) Brillant teach your child about animal
E241 COMMS GUIDE V1.1 beginner modem user
E242 GUIDE TO WEATHER (3d) superb complete guide to the weather. recommend
E245 MATH ATTACK- Maths relate games for kids
E242 ANIMAL-LAND-Ideal for young kid. Excel
E243 PICTURE-MATHS-Maths program for kids
E246 BEGINER GUIDE TO WB 3 (A1200 only)
E247 GLOBE FACT(2) fact about planet earth
E248 KID ONLY. 6 excelent game to play with
E250 SANTA -Help Santa collect present games
E251 BIRSTHDAY HISTORY V2.2-
E252 BAR-TENDER-recipt for 1000 drink/cocktail
E253 BEGINNER TYPING TUTOR-

NEW EDUCATION & 21 GAMES PACK 2

Latest education pack & new 21 game collection (5 disk packs) only £4.95

WE ALSO STOCK THE ENTIRE COLLECTION OF LSD LEGAL TOOLS 1-150 SCOPE 1-220 FRED-FISH 1-1000 ASSASSIN GAMES 1-200 ETC

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Any pack comes on 5 disks only £4.95 per pack

- COLOUR FONTS Pack (1 or Pack 2)
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- VARIOUS CLIPART Pack (1, 2 3 or 5)
- COLOUR WORLD MAP (Pack 1, 2 or 3) High quality world map
- COMPUTA-GRAPHIC FONT (Pack 1, 2, 3, 4 or 5) High quality font for WORDSWORTH or any DTP
- IMAGINE VARIOUS OBJECTS (Pack 1, 2 or 3)
- REAL 3D VARIOUS OBJECTS (Pack 1, 2 or 3)
- LIGHTWAVE VARIOUS OBJECTS (Pack 1, 2 or 3)
- TRUE FONT FOR ABOVE (Pack 1, 2 or 3) (Please state for which pack above)

We also stock many more packs. Please Phone

COMMODORE C64 V3



The very latest version. Now you can play real Commodore.C64 games on your Amiga. All packs below are complete & ready to play directly on your Amiga. Printed instructions provided.

- C64 & 45 original games........£4.99
- C64 & 100 original games........£8.99
- C64 & 200 original games......£16.99

P.S. C64 V3 & 100 GAMES PACK GOT 88% REVIEW IN AMIGA SHOPPER ISSUE 54

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Now you can play 100's of Spectrum 48K Games on your Amiga. Any Pack below is complete & ready to run on your Amiga. Full printed instructions provided.

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More Spectrum games available ← screen shot from AMIGA

Special Offer

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1000 SPECTRUM GAMES pack

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NOW ONLY £29.99

C64 v3 PK4

Special offer C64 v3 and 45, 100, 200 games pack with extra 55 C64 games making 400 C64 games & utilities disks. Comes on large number of disks + games list and loading leaflet. Only £24.99.
See C64 or Spectrum advert box for more details

AGA A1200 & A4000 ONLY

THIS LISTING ARE FOR USE WITH AGA AMIGA

AGA001 EXTENSION DEMO Stunning demo, fast landscape anim and a rotating city, regard the best AGA demo
AGA002 FRACTAL GENERATOR fractal in 256 colour.
AGA003 WORKBENCH HACK many hack/toy/blanker etc
AGA006 NEW SUPER KILLER know kmow & kill over 315 type of virus must for all A1200 owner
AGA007 MINDWARP very first demo for the A1200
AGA008 KLONDIKE DELUXE AGA (3D) the best A1200 card games with glamours lady as cards face 18 + only
AGA011 SLEEPLESS NIGHT 3
AGA012 PLANET GROOVE Truly A1200 Demos
AGA013 MOTOR INVADER 2 (2D) Brillant INVADER gane
AGA015 POINT OF SCALE Great A1200 only demos
AGA016 CHROMAS- Fairly good demo.
AGA017 WORLD OF MANGA (4DISK) magnificent Japanese comic slide show include Japanes Chick etc recommend
AGA021 MAGIC WORKBENCH Improve the look of your WB & add some function to your WB really BRILLANT
AGA022 WB 3 UTILITIES load of Wb 3 only utilities
AGA023 U-CHESS the best chess program games so far but require 4 megbytes. Brillant graphic
AGA024 WORKBENCH 3 SCREEN Great back drop
AGA41 ADULT SLIDE Vol 1-9 (2 disk each) *see below
AGA62 BODY SHOP VOL 1-7 (2 disk each) *see below
AGA80 FITCHICK vol 1-3(2disk each) *see below
to order any disk above just state disk code & volume no? (remember 2 disk per volume)

DEGRADER

AGA090 A1200 FIX DISK COLLETCION 1
AGA091 A1200 FIX DISK 2 COLLETCION 2
AGA094 RELOCKIT V1.4a latest. run A500 SOFTWARE
AGA306 A1200 FIX DISK VOL 3 (new july 95)
All disk above are design to make any old A500-A600 Amiga programs/games etc to run on your A1200/A4000
MUST FOR ALL AGA AMIGA OWNER. RECOMMEND

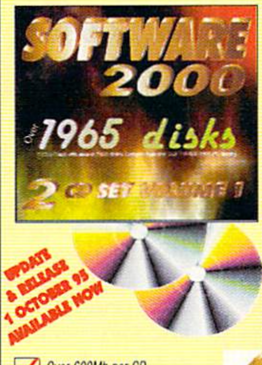
AGA097 A1200 UTIL - AGA TESTER, SYSINFO etc
AGA098 ACTION REPLAY V4 Complete ACTION REPLAY.
AGA099 MADFIGHTER 2 brillant street fighter clone
AGA100 AGA BLITZ SCREEN BLANKER
AGA101 FAST GIFF 2 display GIFF pic in Workbench.
AGA102 AGA DIAGNOSTIC - NEW system tester
AGA103 BLACK BOARD AGA decent Image processor
AGA105 QUICK GRAB AGA -grab AGA screen PICTURE
AGA110 WORLD BEYONDS 1 (3) stunning 256 COLOUR fantasy art. leave atari userbreathless
AGA114 SMELL LIKE CHANEL NO5 brillant demo ray trace picture ever release on the A1200
AGA121 MAGIC FACTORY 1 STAR TREK (5 disk)
AGA133 AGA UTIL v1&2 (2) AGA util compilation
AGA135 AGA UTIL V3 &4 (2) more of above
AGA137 MULTIBOOT- 4 various version A500 EMU
AGA138 OFFICIAL WORKBENCH 3 HARDDRIVE INSTALLER
AGA139 WB3 HARDDISK PREF & INSTALLER installing
AGA140 CROSS DOS PLUS v5.1 read/write PC files
AGA142 SUPER LEAGUE 3 -latest manager games
AGA144 SPEAK & SPELL - educational software for kid
AGA145 BIG TOPS (18 + only)HMMmm
AGA146 KELOG LAND -brillant platform games
AGA150 ACTION REPLAY V5 - NEW UP DATE TO V4
AGA160 GIGER TRIZ very playable 256 colour tetriz
AGA162 FATAL-BLOW new STREET-FIGHTER 2 clone
AGA164 CINDY CRAWFORD Vol1 (2 disk) latest release
AGA166 INFESTATION (3 disk) The ultimated AGA demo
AGA170 CINDY CRAWFORD Vol II (2disk) amazing
AGA172 VIDEO TRACKER AGA-ultimate demo maker
AGA174 MAGIC WB EXTRA vol 1 & 2 (2disk)
AGA180 GIF BEAUTIES Vol (11-18) 8 more girls disk
AGA189 FRIDAY AT 8 another brillant AGA demos
AGA190 ASSASIN MULTIVISION AGA pic viewing util
AGA192 ALIEN FRENZE 2 player blasting +power up
AGA194 BIG TIME SENSUAL (2disk) SPACE BALL 2
AGA200 MASQUERADE 2disk brillant puzzle games.
AGA202 RAM JAM 94 it cat be done (2disk)
AGA203 EXPLIXIT 2 DEMO new effetc welldone.
AGA204 COMPLEX ORIGIN 2disk require 2 diskdrive
AGA206 TREASURE OF TUTANKHAMUN- eductaion tool
AGA230 LOVE 2 disk-simply brillant DEMOS
AGA231 AGA UTIL 7 & 8 (2 disk) ,More USEFUL util

AGA234 KNOTTY-Stunning AGA sliding pictre puzzles
AGA240 LOTTERY WINNER hope fully will improve your chance of winning a jack pot..GOOD-LUCK
AGA241-258 AGA GAME-GALORE AGA 01-18 lot of games
AGA251 PACKMAN AGA -the best pacman yet
AGA252 ROCKET PD - Super thrust clone brillant graphic for 1 or 2 player
AGA253 REAL DEMO stunning special effetc
AGA254 DIRT AGA Brillant 256 colour effetc.
AGA255 DELIGHT EXPLORE exclient demo
AGA256 KEFEREN AGA Demo lot of effetc
AGA257 MINOMIST RAVE great rave music.
AGA258 OXYGENE Fantastic demo
AGA259 INTEL-OUT another very good demo
AGA260 SOMEJUSTIC94 Demo of the month brillant whirl effetc. RECOMMEND
AGA262 TO THE DEATH very good STREET-FIGHTER clone with very good graphic.
AGA263 GEORGE GALAXO (2disk) brillant multilevel shoot/platform game. RECOMMEDN
AGA265 MISSILE OVER ZENON (2disk) Brillant 3D missile commander with fantastic graphic
AGA266 TEAM-HOI DINO PLATFORM excellent dino platform Note:this disk was a commercial games
AGA274 MUSIC 2 SURVIVE 2disk 8 excellent music master piece. well worth getting
AGA271 RAVE MAXIMUM OVERDRIVE II (2disk)
AGA278 CHANNEL Z ISSUE 1 (AGA) (2disk)
AGA base disk magazines. RECOMMEND
AGA disk magazine topic.demo/music
AGA285 WORKBENCH BACKDROP VOL 3
AGA295 DE-LUXE MONOPOLY- Board game.V addicted
AGA296 DONKEY KONG Arcade classic conversion
AGA297 BOMB PAC Extreamly good to play
AGA298 ROCKET 2 set deep underground brillant graphic. even better with 2 player
AGA299 SCRABBLE-Now fully run on all Amiga
AGA300 MAGIC WB V2. Demo of version 2
AGA302 TUTANKHAM II(2) Education-Egyptian MUMMY
AGA303 PAMLA.ANDERSON.(2) 18+ only BayWatch Babe
AGA304 BODYSHOP V8 (3) more bikini beauties
AGA305 TIMEZONE (2) V.Good graphic adventures.
AGA307 DENTAWOLF dooms demo
AGA308 NAXIS -Really show what AGA graphic co do
AGA310 FEARS (2d)- dooms clone demo
AGA312 JINX (2d) Fantastic arcade puzzle
AGA313 RAM JAM THE TASTE DEMO.very wicket demo.
AGA315 ILEX MYSTIC. New AGA demos
AGA320 KLONDIKE 3 (4disk) Hd require & 2meg +we asio have a list of 25 cards for above.
AGA321 HOT-BABE 1 (2) MUST BE OVER
AGA322 HOT-BABE 2 (2) 18
AGA323 HOT-BABE 3 (2) BEFORE
AGA324 HOT-BABE 4 (2) ORDER ANY
AGA325 HOT-BABE 5 (2) OF THE HOT-BABE PACK
Hundred of quality Magic wb icon & back drop
AGA388 DESK-TOP MAGIC- 32 animated screen blanker
AGA389 WAR OF THE WORLDS -full 3D games
AGA390 FEAR 2. Brillant 3D graphic games like
AGA391 PSSST Amiga version of Spectrum games
AGA392 CHILD MURDER(4)Horror graphic adventure
AGA390 FEAR II -Brillant 3D game play just like DOOM on the PC Garrenteed you impress.
AGA393 PC EMULATOR V3- Latest PC emulator
AGA400 HYPER RACE (2) Super racing games
AGA410 CINDY CLAWFORD (3) new
AGA411 ELLE MACPHERSON (3)
AGA412 CLAUDIA SCHIFFER (3)
AGA413 BIG GIRLS II (3)
AGA414 GIRLS GIRLS (2)
AGA415 NIKY TAYLOR (2)
AGA417 KYLIE MINOUGE (3)
AGA418 FEMALE BODY BUILDER (3)
AGA419 EXCELLENT CARD GAMES 3 latest
AGA420 POKER & BLACK JACK DELUXE (3)4MEG
AGA421 COLOUR WB make your WB more colourful
AGA422 RIDGE RACER Demo on the Amiga,
AGA423 DRUG STORE DEMOS (2disk)
AGA424 DREAM WALKER (2) Demos
AGA425 MYSTIC DEMOS(2) 95 excellient demos
AGA426 ORIGIN 2 (2 DISK), Amazing

← SEE PAGE 1 FOR MORE SOFTWARE FOR YOUR AMIGA

SOFTWARE 2000 DOUBLE CD CONTAINS

OVER 1965 DISKS



This is the Big one! Nearly 2000 original disks from the SOFTWARE 2000 library included on a Double CD set. For title list just take a look at this Doubles advert for examle of titles & packs which can be found on this CD. No lucky dip or unknown software. Full description on every disks/titles. Very easy to use menu system on both CDs. This unique menu system lets you explore the contents of both CDs without disc swapping...Excellent. See below.

EXAMPLE OF DISKS CAN BE FOUND ON THE DOUBLE CD SET

294 – VARIOUS UTILITIES DISKS
252 – ANIMATION DISK
181 – AGA DISKS
92 – TOP SAMPLE AND FX DISKS
118 – EDUCATION DISK
133 – DEMOS
225 – MUSIC DISKS
18+ – DEMOS (Adults only)
402 + VARIOUS GAMES DISKS – with an estimate of around 1000 + Amiga games
50 LATEST DISKS OF MAGIC WB `7 BACKDROP. Version for all Amigas also includes 100s of IMAGINE OBJ, 600s AMIGA FONTS, 100s QUALITY B&W & COLOUR CLIP ART, & MUCH TOO MANY TO LIST...

ALSO INCLUDED ON CDs ARE

OVER 1000 NEW Spectrum Games (Play direct from CD) **&** Both never been released on any CD Rom **AROUND 700 -1000** NEW C64 Games files (EMULATOR INCLUDED)

- Over 600Mb per CD
- Menu compatible with all Amigas
- No duplicate of data
- Very easy to use Menu

2CD SET VOLUME 1

RRP ~~£34.99~~ NEW PRICE **ONLY £29.99** + 70p for P&P

Available Now

Below new games pack released due to popular demand. With any of these games packs, you know exactly what sort of games you're buying.

Like our previous packs, each pack comes on 5 disks and using the latest disk packer we can put upto 5 games on to one disk. So you get upto 25 top games for only £4.99. All games & instructions will run automatically when you click on the icon. All games pack contain different games. Compatible with ALL Amigas.

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Non CD rom owner

This pack is ideal for any Amiga owner who doesn't own a CD rom drive and wants a large amount of the very latest software at minimal cost.

These packs will be 100% update with all new or different software on the 1st off every month. All software are packed using LHA which has a ratio of approx 3-1 (up to 30 disks worth of software from the 10 disk pack). Highly recommended as you will get 3 times more software per disk.

- **Various latest games (10 disks)......only £9.90**
- **Various latest utilities (10 disks)......only £9.90**

NEW TITLES

G938 ULTIMATE TOUR TENNIS – (2 disks) Excellent tennis game
G939 DARK ANGEL – (NOT WB1.3) Superb arcade adventure
G940 RAISE THE TITANIC – Good 3D Adventure game
G941 PHANTOM – Excellent shooting games (Defender 96)
G942 MACDONA-LAND – Brilliant game similar to Zool (not A1200)
G943 JOUST III – Brilliant C64 game with updated Amiga graphics
G944 DELUXE GALAGA V2.6 – The very latest Galaga. Highly recommended
G955 LAZER RACE – Good Tron type, extremely addictive to play
G956 TRAIN-DRIVER SIMULATION – The most realistic train sim.
G957 MASTER BLASTER – Kill various monsters with bombs
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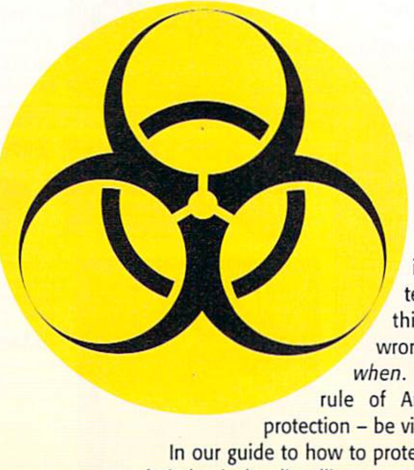
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Protect and



System meltdown. Damage to and loss of data costs business millions of pounds every year, though individual companies do their best to hide the figures that reveal the inadequacies of their IT backbone. It's no exaggeration to say this threat features highly on the list of corporate nightmares.

While physical damage to a computer is bad enough, the permanent loss of data can be much more costly in the long run. This is as true for the Amiga user in the home as it is for the top businesses. Failure to adequately guard against hard drive failure and viral infection can lead to the loss of months of work, expensive software and irreplaceable information. Without the correct precautions, it's not a matter of *if* something will go wrong, but rather *when*. The golden rule of Amiga system protection – be vigilant.

In our guide to how to protect yourselves, let's begin by dispelling some of the myths that have grown around computer viruses.

Firstly, just because you invested in a top-of-the-range commercial virus killer a year ago, don't imagine you're safe. Experts estimate that about 5-10 new viruses are being developed every month, making anything but the latest version of your protection software ineffective against the newer strains.

Trusting

Secondly, don't trust any new media that you introduce into your Amiga, whatever the source. One publishing house was recently involved in legal wranglings because a virus was accidentally included on one of the magazine's supposedly virus-checked coverdisks !

Over 70 per cent of virus infections occur when users try to boot from infected disks. Usually an Amiga-based virus hides itself so that it appears to be harmless – this is an intentional design feature intended to give the virus the best chance of spreading. Viruses transmitted by disks tend to work by installing themselves to the bootblock of the disk, from which they copy themselves from disk to disk as you swap floppies.

If you think resetting the machine will solve the problem, you're mistaken, since many viruses can survive a warm reset and remain to infect new disks. However, it is worth getting into the habit of turning off your computer for at least 30 seconds between loading disks, as this process clears all sectors of RAM, limiting the chances of further infection.

In terms of destructiveness, the most lethal viruses are those that format your hard disk or overwrite your rigid disk block. Why? Because when you're a victim of this sort of virus, it's usually impossible to salvage anything.

Though less common at the



Scheme for survival

1. Invest in a back-up system that's convenient and fast enough so you'll use it frequently. Cheapskates and slackers pay dearly in the end.
2. Update your virus checker as often as you can – new threats appear by the week.
3. Computer theft has risen drastically in the '90s. High-end users in particular should consider devices for theft prevention.
4. Don't use pirated software; link viruses are often attached to the pirated program.
5. Switching your Amiga off for 30 seconds or more will clear the memory of viruses.
6. Have a specified time when you back up your data. How often you do this depends on how much work you can afford to lose. But don't leave it to chance, set a time of day and stick to it.
7. Keep your disks write-protected. Viruses can't write to a write-protected disk.
8. Double check that all new programs come from a trustworthy source. Even then, use your virus checker.
9. Don't break the protection routine – calamity seems to strike just after you missed a back-up day.
10. If you've access to the Web, get regular general advice updates from the Computer Emergency Response Team at http://www.cert.org

Terminal illness

Otherwise known as some of my favourite viruses:

SCA virus – the first Amiga virus of them all attaches itself to the Cool-vector, remaining resident in memory even after a warm reset so it can continue to affect other disks. Any respectable virus programs should render it harmless.

Byte Bandit – this well-known Amiga virus stops your computer working and copies itself to new disks. Like SCA, it is now easily detected.

Saddam – a nasty piece of work, Saddam disguises itself as the disk-validator which is part of Workbench 1.3 software

$4eb9 – thrillingly named it isn't, but problematic. Can be linked to fake archives and programs. These viruses generally attach themselves to the first chunk of a program's code, activating themselves before the real program is run to give themselves a method of spreading. Prolific in pirated software.

System crashes, viral infections, hard-drive failure and theft – your data is in danger. **Gareth Lofthouse** and **Tina Hackett** report on how to deter, prevent and salvage when your **worst nightmares** come true

survive

moment, Internet-spread viruses are increasingly significant and, with the growing popularity of surfer packs, are becoming as much of a threat to the Amiga user as anyone else.

The case of Christopher Pile, alias The Black Baron, who was the first man to be convicted under the Computer Misuse Act, was a recent example of how successfully the Internet can be as a means of disseminating viruses. With a virus called SMEG – Pile was typical nerd fan of Red Dwarf – he is said to have wreaked havoc on computer ➤



SUPERSTORE SOLUTIONS

Amiga Computing's past judgements on back-up devices

SyQuest EZ drive	Ease of Use: 90%
White Knight	Implementation: 90%
01920 822321	Value for Money: 90%
£239	Overall: 90%

A serious competitor to the Zip, the EZ drive is good-looking, compact, fast to spin up, read and write, and very reliable. If you want to know just how fast it is, the admittedly notoriously inaccurate SysInfo suggests the EZ gives speeds of about two and a half Mb/second – when it comes to copying large files like animations it's almost as fast as your hard drive, in fact.

An advantage over the Zip is the fact that the EZ boasts proper SCSI connectivity and can use all SCSI ID numbers. Critics, however, point to its higher price, its cumbersome eject mechanism (an old complaint with SyQuest), and an annoyingly designed power supply. Nevertheless, erstwhile *Amiga Computing* Editor Ben Vost didn't hesitate to bestow the EZ with the Blue Chip award.



The SyQuest EZ – slightly more chunky and costly than the Zip, but with a few advantages of its own

Zip Drive	Ease of Use: 98%
HiSoft	Implementation: 98%
01525 718181	Value for money: 90%
£189	Overall: 96%

Hailed as a revolution in storage, the Zip drive made a big impression on the *AC* team when it arrived in mid-1995, and duly won itself a Blue Chip award.

Aesthetically pleasing (Ben described it as a prop out of Blade Runner), and remarkably compact, its 100Mb disks made it easier and cheaper than ever to store and transport large volumes of data. It also instantly made it one of the most viable and affordable back-up solutions available to the Amiga owner.

One limitation is the fact that it can only be used on SCSI ID settings five and six, but that was about it. Since the arrival of the EZ drive, however, Iomega does have more serious competition on its hands.



The Zip drive – affordable and fast removable media

Jaz Drive	Ease of Use: 90%
HiSoft	Implementation: 87%
01525 718181	Value for Money: 83%
£529	Overall: 90%

The Jaz drive is the Zip's larger and more pricey brother, so what does it offer over cheaper alternatives?

Well, in some ways it seems less desirable than the Zip. For one thing it's less compact, lightweight and portable as an overall unit. But the real strength of the Jaz lies in the fact that the disks store an amazing 1Gb of data, which makes them worth every penny for high-end users, and also well-worth considering as a top-end back-up solution. For the average user, however, the Jaz may well be just too expensive. An excellent product all the same.

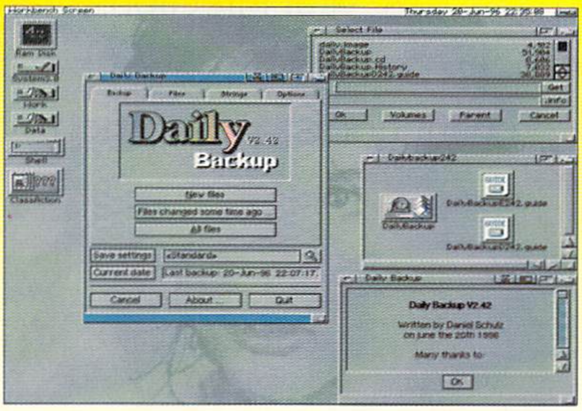


Although quite pricey, the Jaz drive is an excellent addition to your system

SOFT OPTIONS

There are a range of software programs also designed to do the job of backing up your hard drive. One available on Aminet (as disk/bakup/DBackup242_MUI.lha), is called Daily Backup and, as suggested by the title, it backs up your work daily by looking for new files (see this month's Public Sector), and then stores them onto floppy disk. With a user-friendly interface and handy features such as the option to pack files, this utility comes highly recommended. To work you need a battery backed clock, Workbench 2.04 and MUI 3.1.

If finances are tight then this is an invaluable solution to backing up your data. ABack is a similar idea which has XPK support and remembers which files you've already backed up. It may also be worth investing in a utility called Discology which makes copies of programs and also check disks for errors



Daily Backup comes cheap and is an excellent solution to your backup worries

➤

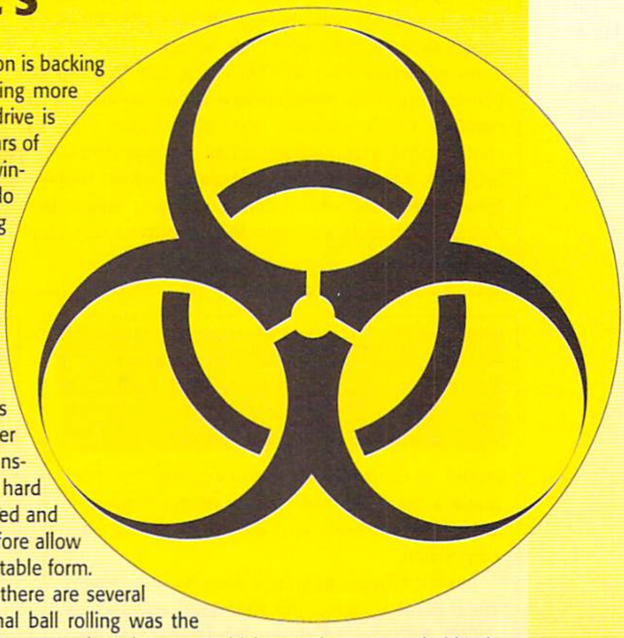
systems around the world. On the other hand, and contrary to popular opinion, virus infection via e-mail is highly unlikely. Viruses can't be transmitted via text, though it's true they can be transferred via e-mail attachments. A message appeared on the Internet some months ago advising anyone who read it not to read any e-mail messages or Usenet articles with the title Good Times. It frightened a few people but actually turned out to be a complete hoax.

Guarding against most viruses is not so difficult, provided you adopt and stick to a simple but regular security routine. Every time you get a program, whatever the source, use the newest virus checker and you should be safe. This, obviously, is true not only with programs introduced via disks, but also anything downloaded over a modem. In the latter case, virus experts also advise Amiga users not to download the latest programs that appear on a BBS – instead, wait a few days by which time they should have been checked out by someone else!

DEATH THREAT

There are still a number of commercial virus killer programs available to the Amiga owner, such as Siegfried Anti Virus Pro

BACK TO BASICS



One of the most important aspects of Amiga protection is backing up your program and hours of labour. There's nothing more stomach-churningly awful than realising your hard-drive is no longer working and that, what's worse, there's years of work on it – including the potential Booker prize-winning novel that you've only just finished. So what do you do to avoid this nervous breakdown-inducing crisis?

It's simple enough. Back up your data before it happens. There are several methods of doing this ranging from expensive DAT drives to affordable tape streamers and the cheaper software programs which compress and back up your data.

For many Amiga users, the best all-round options are based on removable media solutions which offer the user a dual function. Firstly, they allow you to transfer and use memory hungry documents without the hard drive and, secondly, they mean your data can be stored and backed up on removable media. These options therefore allow you to store large amounts of data in a compact, portable form.

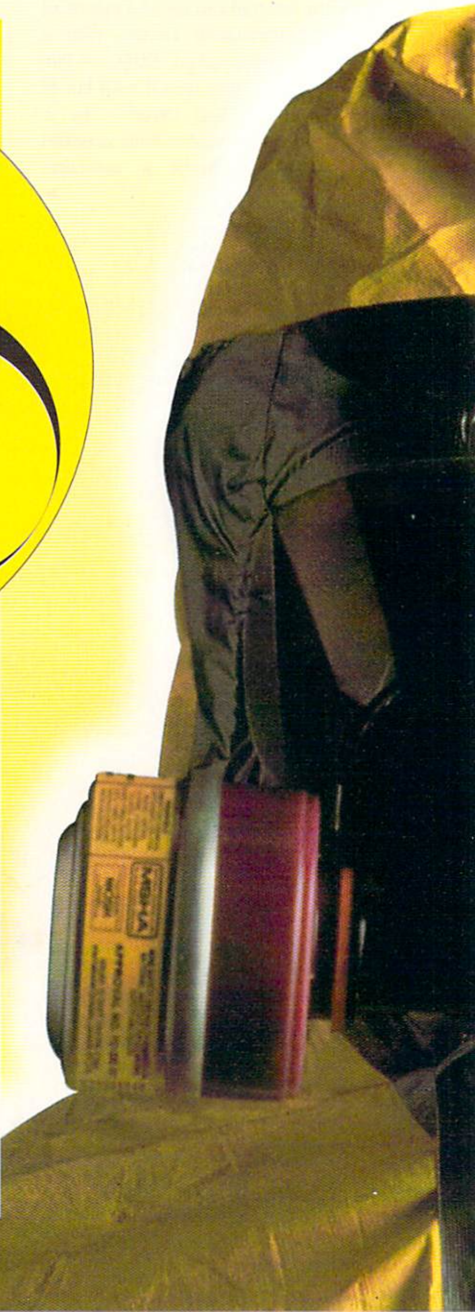
If this is the kind of two-way solution you need, there are several products on the market. The first to start the original ball rolling was the SyQuest with its 44Mb cartridges, then the Bernoulli Box arrived on the scene which was also superseded by the 128Mb magneto optical drive. Another popular option which caused a stir was the 100Mb Zip drive, which in turn became rivalled by the Syquest EZ drive. The Zip drive drew attention with hi-tech looks, a shocking blue colour, and worked well enough to win a coveted Blue Chip award. Limited only by the fact that you have to use the SCSI ID numbers, five and six, the actual speed of the Zip is very impressive – a disk is ready in about four seconds and writes data at 1Mb per second.

The most recent addition, however, is the Iomega Jaz drive which was brought out only a couple of months ago. The Jaz drive is a little more costly at around £529, but will hold 1Gb of information. Unlike the Zip, this drive can be any SCSI ID number and coming from HiSoft, you have all the software you need to run the drive via a Squirrel. There is also a modified version of the Zip Tools which means you can write or password protect the disk.

Most of these products are widely available. For example, the EZ drive can be picked up from around £200 and the Zip for about £190. Incidentally, SyQuest has just reduced the price of its EZ135 drive to £89.

Tape Streamers are also cheap, but finding drivers that will work with them can be a problem now for Amiga owners. They can, however, be used with programs like ABackup. SCSI DAT drives, by contrast, work perfectly well but now seem unnecessarily expensive in contrast to the equally powerful but more affordable Jaz.

Another method you may prefer because of its cheapness is backing up your system onto four-hour VHS tapes. Called Video Backup (the latest version being Video Backup 3), it allows you to store up to 520Mb. This is available from Power Computing (01234 273000), but bear in mind that it's a slower method than those mentioned on the previous page.



(available from Siren Software – 0161-796 5279). Anti Virus is launched as an application – which means you have to remember to use it – and is equipped with tools for scanning disks, blocks and files for all types of viruses. You can also save bootblocks, the advantage of which is that if a disk becomes infected it's possible to restore it, even if it's a non-DOS game.

Frankly, however, a shareware program simply entitled Virus Checker is the long-established program that most concerned and responsible Amiga owners opt for, and with good reason. Apart from being a money saving option, Virus Checker is probably more regularly updated to tackle new viruses than any other protection program available – which is good news if you're able to download updates at regular intervals.

Provided you insert it in your StartUp, Virus Checker sits unobtrusively in the background, automatically checking for suspect programs – which makes it a lot easier and painless to use than some of the alternatives. In fact, you will only see it appearing on screen if it's found a virus, a suspect file or an unknown bootblock, in which case it gives you the option to eradicate the problem.

Just because you invested in a top-of-the-range commercial virus killer a year ago, don't imagine you're safe. Experts estimate that about 5-10 new viruses are being developed every month

Virus Checker is also capable of scanning for Saddam, one of the most damaging viruses to have been unleashed onto the Amiga in the past, and one that was once notoriously tricky to detect. As shareware, the program can be used free, though registration is recommended because it contains additional tools for scanning libraries of compressed files – this should prevent you from unwittingly de-archiving a virus.

There are, of course, numerous other alternatives available, such as BootX and Virus Info Base. Some of these have their own individual strengths and can be used together to advantage. However, it must be stressed that the golden rule is not to trust any program you're introducing into your Amiga for the first time, particularly when experimenting with unheard of virus checkers. You see, virus programmers enjoy the non-too-subtle irony of using bogus virus killers as hosts to disguise their latest brand of mischief. The same can be said of faked commercial disk copiers, which sometimes look identical to the real thing. Make sure you know where any virus killer has come from.

Of course, computer viruses are only one of numerous threats to the Amiga and your precious data. You could be the victim of more obvious criminal damage in the form of theft. More likely, however, are the sort of commonplace but nevertheless soul-destroying disasters born of Sod's Law: accidental deletions, software corruption and irreparable damage to your hard drive. Your survival programme has only just begun…

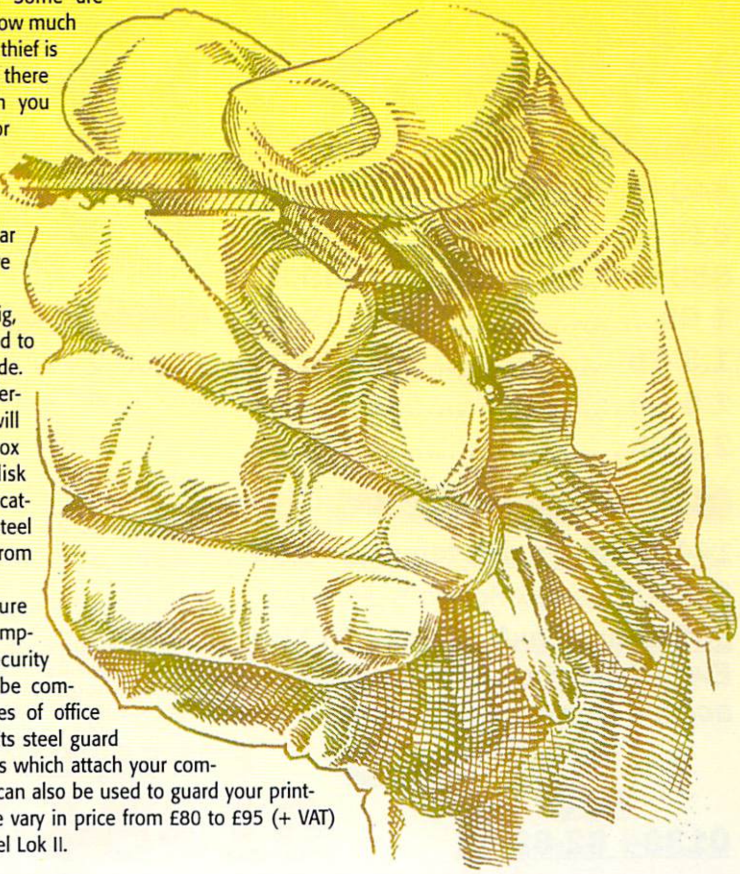
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SAFE AND SECURE

If your elders and betters are harping on about the good old days when they could leave the back door open whilst they nipped to the shops, it's worth pointing out that times have changed. So much so, in fact, that no possession is safe. This is especially true of computers. Perhaps no-one will look twice at your old C64, but imagine the horror of your upgraded, cost-a-lot A4000 disappearing without trace, or some unscrupulous pilferer taking a fancy to your chips. Sounds far fetched? Well, according to the Association of British Insurers, computer theft costs the country £200 million, although this figure could be as high as £1 billion due to uninsured losses and lost production time.

But there is something you can do to protect your computer and there are many weird and wonderful devices designed to do the job. Some are rather basic, though, and how much they will deter a persistent thief is questionable. For example, there is a cable lock kit which you attach to your monitor or hard drive and then this connects to the desk. However, it may not be enough to deter the burglar with a handy pair of wire cutters.



Other options include big, bulky metal boxes designed to store your computer inside. These can be made to different specifications but will only really suit the big box Amigas because the disk opening slots tend to be located on the front. Called Steel Enclosures, they range from £85 to £185 (+ VAT)

Although called Secure (0171-610 3646), this company provides some security equipment which would be compatible with different types of office equipment. For example, its steel guard kits provide locking devices which attach your computer to your desk. Some can also be used to guard your printers and fax etcetera. These vary in price from £80 to £95 (+ VAT) for the Steel Lok I and Steel Lok II.

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Double exposure

Even **Neil Mohr** can manage impressive results with **Almathera's** latest version of **Photogenics**

When Photogenics was first released it deservedly got high acclaim. With its rapid 256 and 24-bit colour previews, huge suit of supported image files, vast array of effects and drawing tools, it was one of the most polished Amiga products on the market. Almathera has now revamped Photogenics and released version two

I suppose the first thing I should say is that unless you have a CD-ROM drive you will not be able to use Photogenics 2 because it is only available on CD. This has the advantage of making installation very quick with no need for disk swapping, and it allows Almathera to bundle a whole load of example files for you to use and experiment with. Along with the tutorial and example images are a whole bunch of colour fonts, LightWave objects and a number of animations.

CULTURE SHOCK

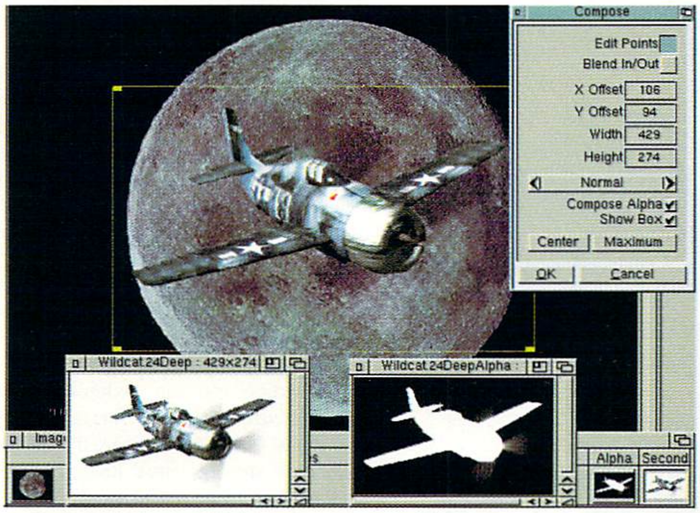
Current owners of Photogenics will be familiar with how it works and will be more interested with what is new in version two. For people that have never used Photogenics before, when you first sit down and use it you get a bit of a culture shock because it works in a completely different manner to DPaint or Brilliance. Instead of painting directly onto your loaded image, as with DPaint, Photogenics has an invisible 'paint layer'. This can be thought of as a sheet of glass, 'protecting' the current image, that you can draw on to as much as you like until you are either happy with what you have done, or you can wipe the whole sheet and start again without effecting the current image.

This allows you to draw onto the image with any of the available brushes. You can then change your brush type, drawing mode, current drawing colour or any of the drawing mode's attributes. These actual changes are not made permanent until you hit the fix button on the tool bar, at which point the effects you have drawn are applied to the image. If you are not happy with what you have done, click on the clear paint layer button and start again. The paint layer can be copied to the alpha channel, loaded and saved.

In Photogenics, the main way you alter images is through its paint modes. These modes range from the straightforward, standard paint colours all the way through to complex convolutes functions – in all there are 60 different modes. Many of the modes have extra options that let you adjust just how much the image will be affected by the paint mode.

Each of the modes are applied to the paint layer using one of the various types of brushes. By allowing each brush to have a separate size, pressure, translucency and shape, a wide variety of 'natural' brush types are available, and due to the modular construction of Photogenics, it is possible for you to create and add your own brush types. All these drawing operations take place on the very fast, scalable preview windows that can be run in 16, 256 or HAM-8 colour modes.

AMIGA BLUE CHIP AWARD



Photogenics' powerful alpha channels are still included, and are perfect for photo-composition



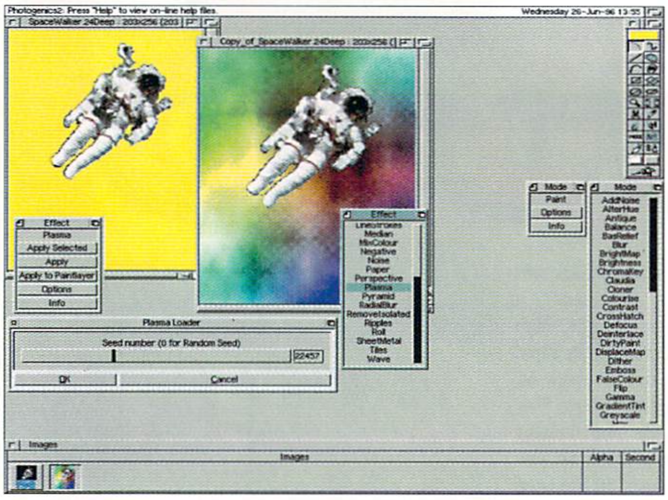
Photogenics' Newicon support makes for a more beautiful Workbench

WHAT'S NEW

The first thing that current users of Photogenics will notice is that there is a new GUI – the basic windows are the same but they have undergone a subtle overhaul. Just as many PD utility authors have found the standard Amiga GUI Gadtools lacking in both ease of use and functionality, so Photogenics' authors have the same problem. This has led them to write their own interface called Widget, which is based on a relatively new GUI system called ClassAction This gave the programmers a much simpler interface to program, while still having low system overheads.

The new GUI retains the same layout of the previous version of Photogenics, but the way you interact with it has changed – for the better I should point out. The main differences are the pop-up style windows which house, for example, the modes, effects and brushes. Normally these will appear on screen, you select the mode you want with the left button and they then disappear. Using the right button brings up any options that are available for that entry.

If you have a large screen you will probably want these windows to be on screen permanently, and this can be done by clicking on the top left of the pop-up window. You can now resize and move the window, and if you save the options, Photogenics will remember its positioning for the next time you run the program. It is obviously a little difficult to describe just how you use the interface, but you will



Photgenics' new effects can be applied directly to the paint layer or a selected area on the image

pick up the new system in five minutes and it works very well.

New for version two is a range of plug-ins called Effects which provides a more powerful and controllable way of applying processes to images than the usual paint modes. They also work with Photogenics' new virtual image mode – see the boxout for more information on virtual images.

WORKING WAYS

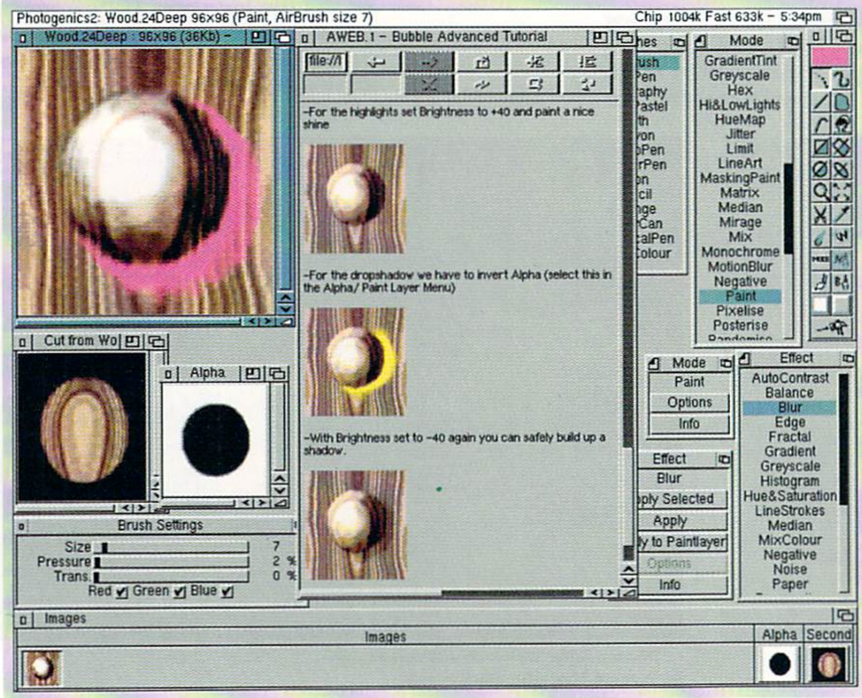
Effects work in a slightly different way to the normal paint modes, probably because they are made to work with virtual images. Instead of the effects being applied to just the paint layer, they can be applied in three different ways. The two most straightforward ways are applied either directly onto the entire image or the paint layer. If you apply the effect directly to the image, by-passing the paint layer, this means the only way of removing the effect if you make a mistake is by using the undo command – however, this is not always available.

The third way is to select an area on the paint layer using the usual drawing tools and apply the effect to this selected area. The effect, however, is not performed on the paint layer but directly to the image, so again you would have to use the undo function if you changed your mind.

On the face of it, it may seem that these effects do not add much to the existing paint modes, but they allow far more complex

HELPING HAND

One of the big additions to this release is the on-line manual which comes in the form of a series of Web pages that you navigate using AWeb. I was a bit dubious about having an electronic manual rather than a paper one, as I would normally say it's easier to refer to a paper manual. In use, however, AWeb takes up the least amount of on-screen room of the current batch of Amiga Web browsers, and even on a 6Mb machine you can comfortably have AWeb running besides Photogenics on a 256 colour screen. Also, it does make it fairly easy to follow the supplied tutorials or look up something in the guides reference section.



If you get stuck at any time, hitting help brings up AWeb

VIRTUALLY N

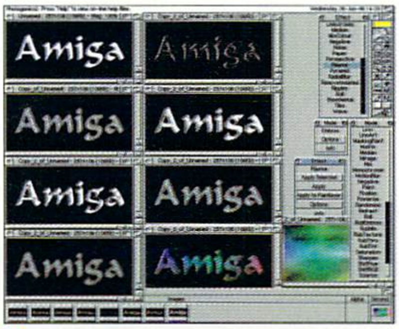
Dealing with 24-bit images is always going to be memory consuming and anything that helps low- and high-end spec machines to handle images larger than they would normally is going to be a welcome feature. ImageFX has had its own virtual memory which did not require you to have an MMU, and now Photogenics has gained a similar ability.

I say similar ability because ImageFX gives you what can be thought of as 'true' virtual memory. That is to say, when you start to use ImageFX's virtual memory it acts exactly the same as normal memory and you can carry on editing an image as usual. With Photogenics' virtual image there are restrictions on what you can do directly to the loaded image. Once loaded you are restricted to only being able to use the new range of effects directly on the entire picture, and ones such as edge detect can take a long time to complete. Other than that, you can only save the image using any of the usual save formats.

So far, the virtual images do not sound too amazing, but what Photogenics does allow you to do is cut out an area of the 'large' image using a scalable bounding box. On this cut out section you can perform *any* of Photogenics' usual drawing or image processing functions. Once done you save the cut out section back into the virtual image, whereupon the whole image can be saved off or you can always change another part of the virtual image. Using virtual images, you can have as

control over the effects you are applying. One example is the fractal explorer effect which allows you to include part of a Mandelbrot in your image. When you select apply, a window opens with various attributes and a mini Mandelbrot explorer that lets you zoom into the fractal. The other big advantage is that many of the effects can be applied to the paint layer before fixing it, giving you even more control.

A few important changes have been added to Photogenics' comprehensive list of load and save GIOs. Web authors will be glad to know that Photogenics can now save both progressive GIF and Jpeg files, and it also supports transparent GIF files. Photogenics is quite novel in the way you specify what area of the image will be transparent. All you do is highlight the transparent area on the paint layer and then when you save the file, Photogenics will automatically work out how to arrange the transparent colour for you. A PNG GIO has now been



A multitude of text effects are possible using a combination of Photogenics' effects

For people that have never used Photogenics before, when you first sit down and use it you get a bit of a culture shock because it works in a completely different manner to DPaint or Brilliance

added and there is a single ILBM GIO that handles every type of the Amiga's IFF files.

An interesting new feather in Photogenics' cap is its ability to handle animation GIOs, which includes support for loading and saving IFF ANIM-5, and loading CDXL animations. Before you get too excited about this, the way Photogenics handles animation is a little cumbersome and is only really suited to an automatic process performed by an ARexx script.

Frame change

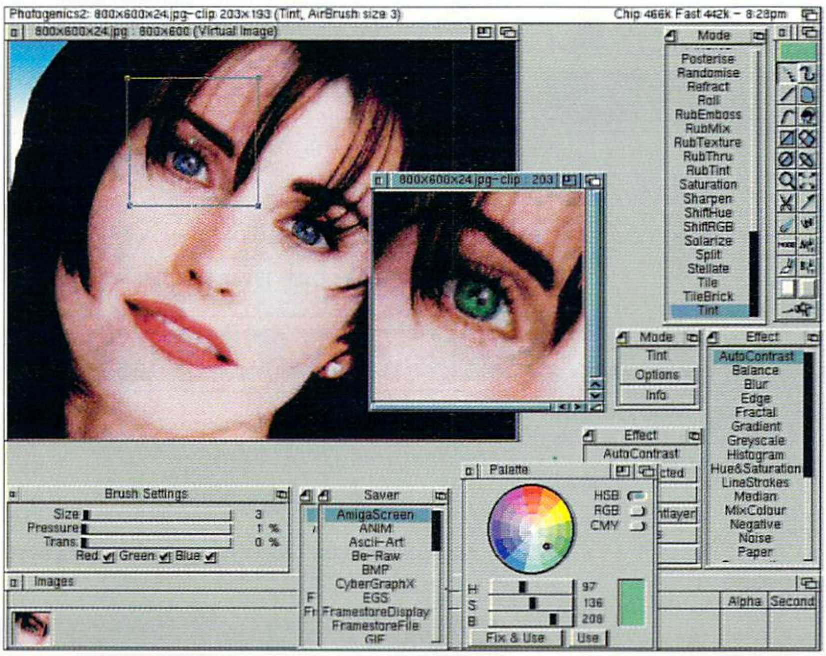
When loading from an animation you have to specify which single frame you want changed. Saving an animation, as I have said, is a little long winded because every frame you save out is a separate image. Each time you save, Photogenics will ask you if you want to add this to the next frame in the animation and, once saved, if that will be the final frame in the animation. On the plus side, however, it does handle multi-palette animations – any mode up to HAM-8 – and will even dither each frame for you. However, don't hold your breath for the none-linear video version of Photogenics just yet.

One thing you may never notice is that Photogenics supports the Newicon system. This is a replacement icon system for the Amiga and uses the icon's tool types to store the alternative icon data. Unless you have the Newicon program running you will never know these icons exist, apart from what appears to be garbage in the icon's tool types. The major advantage of Newicons is that it produces properly colour mapped icons, and Photogenics takes advantage of this and will save off Newicon icons, along with each picture you save out, in either 16, 64 or 256 colours. This means that if you have Newicons you get what is essentially a preview on your Workbench of what each image is. There is even an option to add Newicons to every image in a specific directory.

Another new feature that will please the batch boffins is the inclusion of a full ARexx interface. This makes for simple automation of repeated tasks, such as converting a bunch of pictures, and means Photogenics can be controlled from external ARexx scripts and programs. Within the program itself, ARexx scripts can be assigned to function keys or one of the macro menu entries. A number of example scripts are provided, a couple of which let you generate Ham-8 and Picasso renders of the current image at the press of a button.

If you are currently looking for an art package, I cannot recommend Photogenics enough, as long as you have an accelerated Amiga. To get the best out of Photogenics you need some sort of 030 accelerator and, preferably, at least 6Mb of RAM.

Almathera is also offering registered users a reasonable upgrade offer, and though the online help will be of little extra benefit, the new effects, revised interface and new GIOs make the upgrade worth while. AC



New virtual images let you change things you would never normally be able to due to memory requirements

many cut out sections as you like, and this could lead to the possibility of overlapping sections. What you need to be careful of is that Photogenics regards each section as being completely independent from the others. Therefore, if you make a change to an area of the image that is also contained in another section, these changes will not appear in these other sections. This means you have to be a little careful when saving sections back into your image because you could obliterate previously done work.

Bottom line

Requirements

RED essential | BLACK recommended



Product details

Product	Photogenics 2
Supplier	Almathera
Price	£99.95
Tel	0181-687 0040

Scores

Ease of use	90%
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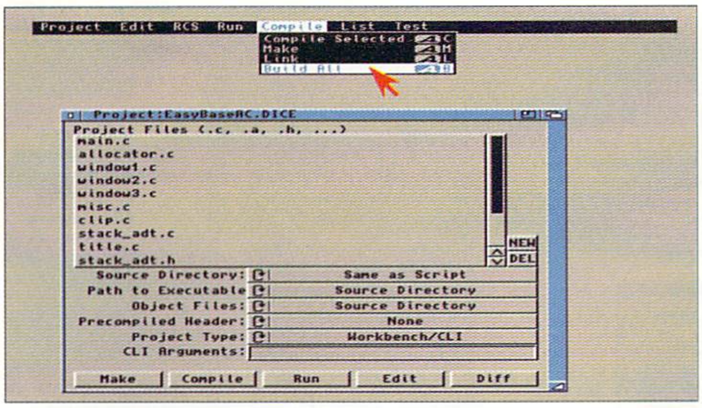
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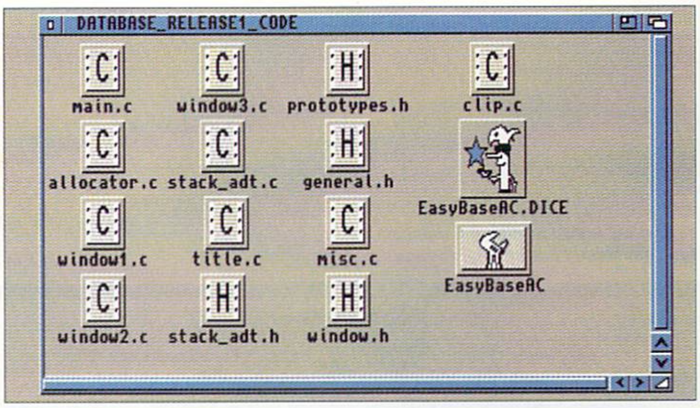
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DICE compiler users will be able to re-compile the EasyBaseAC project by using the Build All option



All the source files need to be stored in a single directory if you want to modify or experiment with the source code

Operation database

Part 6

In this last instalment Paul Overaa puts the final pieces of his database program project into perspective

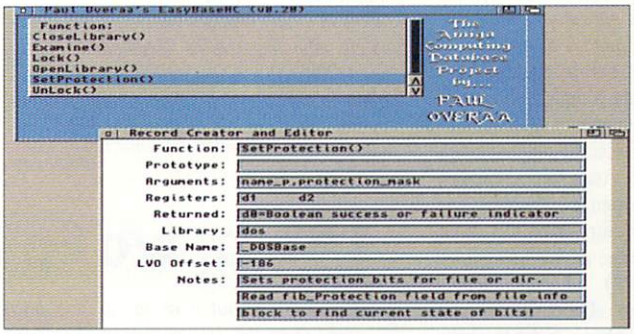
This month's coverdisk contains all the remaining EasyBaseAC project files, with the three most important sources being allocator.c, clip.c and misc.c. The allocator.c code handles the allocation of anything common to the EasyBaseAC program as a whole. All window opening modules, for example, use the Intuition library so, rather than have each module perform its own OpenLibrary() call, it's done from within allocator.c with the returned global library base therefore available to any module that needs to make an Intuition call. The graphics, gadtool and asl libraries are opened by allocator.c for similar reasons.

Most of the routines in the misc.c file will be relatively straightforward to understand. MakeFileName(), for instance (see listing 1), just copies an ASL directory path into a buffer and adds the separately stored filename to it using the DOS library AddPart() function in order to produce a complete file path/name. DrawWindowMask(), a semi-experimental routine used by the edit/create window module (window2.c), searches through a list of gadtool gadgets, looks at each of the gadget dimensions, and then uses the graphics library RectFill() function to draw a slightly oversized rectangular mask into the window area where the gadget will appear.

Benefits

If you want to see the benefit of doing this, try commenting out the DrawWindow Mask() call (using /* */ statements), recompiling the window2.c source, and relinking the project!

There are two routines present in misc.c – WriteBoxText() and ClearBoxText() – that whilst not used in the preliminary version of EasyBaseAC are worth mentioning since they will be used in subsequent versions of the program. WriteBoxText() writes an Intuitext-defined text string into a window inside a box produced by the gadtools DrawBevelBox() function. ClearBoxText() is the corresponding function that removes the text and the box from the display. I'll be using these functions for writing temporary messages to the screen (placing DOS Delay() functions between the text writing and clearing calls to produce the time delays that enables messages to be read).



Recent trials of EasyBaseAC have revolved around the creation of an Amiga library function database

The coverdisk code

As well as the allocator.c, clip.c and misc.c modules there are a number of other files on the coverdisk this month, including a prototypes.h file that contains function prototypes for all routines used in the EasyBaseAC program and the stack_adt.h header file discussed in the May issue (99). I've also included the stack_adt.c source which contains the stack abstract data type routines.

Although only the compiled (object code) module and header are needed by EasyBaseAC, I thought some of you might be interested in seeing inside the corresponding source for this module. It works by allocating a suitably sized block of memory each time an item is pushed onto the stack and inserting it into a list. In this case I'm not using exec-style lists because I wanted to keep this code non-Amiga specific so that it could be recompiled for use on other machines. Do bear in mind, however, as you look at the stack adt code that the whole purpose of using modules like this is to provide usable datatype facilities (in this case stack last-in first-out type storage) without having to worry about the implementation issues.

The other file that you'll find on the coverdisk is the DICE project definition file (EasyBaseAC.DICE). DICE users wishing to rebuild the project just need to place all of the files that have been provided over the last six issues (see figure 1 for details) in one directory, double-click on the EasyBaseAC.DICE icon to run DICE's VMake front-end, and then select Build All from Compile menu. VMake will do the rest!

```
BOOL MakeFilename(struct FileRequester *req_p, UBYTE *buffer_p)
{
strcpy(buffer_p,req_p->rf_Dir);
return(AddPart(buffer_p,req_p->rf_File,BUFFER_SIZE));
}
```

Listing 1: File path/name creation using the DOS library's AddPart() routine

```
UBYTE CreateClipRequest(void)
{
UBYTE error_number=NO_ERROR;
s_clip_request_p=(struct IOClipReq *)
                         CreateIORequest(s_clip_port_p,sizeof(struct IOClipReq));
if (s_clip_request_p==NULL) error_number=ALLOCATION_ERROR;
else {
        g_function1=DeleteClipRequest;
        PushStack(s_resource_stack_p,g_function1);
        }
return(error_number);
}
```

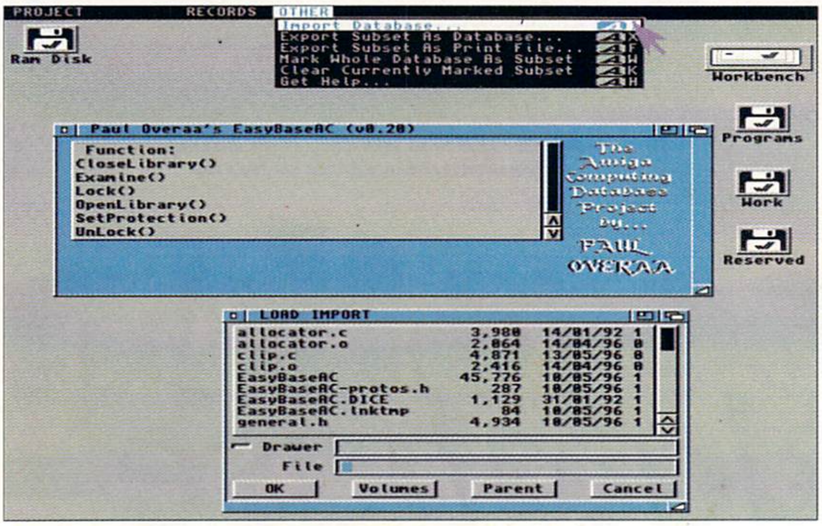
Listing 2: The clip request allocation routine

Listing 4: The clipboard writing routine used in the clip.c source

```
UBYTE WriteToClip(UBYTE *buffer_p, ULONG length)
{
UBYTE error_number=NO_ERROR;
s_clip_request_p->io_Command=CMD_WRITE;
s_clip_request_p->io_Data=(UBYTE *)buffer_p;
s_clip_request_p->io_Length=length;
error_number=DoIO((struct IORequest *)s_clip_request_p);
return(error_number);
}
```

```
void DeleteClipRequest(void)
{
DeleteIORequest((struct IORequest *)s_clip_request_p);
}
```

Listing 3: The corresponding deallocation routine of listing 2



A second version of EasyBaseAC, providing database merging facilities, will be complete within a few weeks

April issue	Preliminary version of EasyBaseAC
May issue	general.h header file window3.c source
June issue	title.c source window.h header window2.c source
July issue	main.c source
August issue	window1.c source
September issue	allocator.c source clip.c source misc.c source stack_adt.c source stack_adt.h header prototypes.h header EasyBaseAC.DICE project definition file

Fig 1: The completed list of project files you should have collected

THE CLIPBOARD DEVICE

EasyBaseAC's use of the clipboard is very basic but the overall way in which the program sets up and uses the device should nevertheless give you a fair idea of how it is handled in general. As with all Amiga devices there is a predefined pattern of events that needs to be followed before the clipboard can be used: We create a reply port for the device to send its messages to, allocate and initialise a suitable device I/O request block (the clipboard device uses an IOClipReq structure), and then open the device using the OpenDevice() function. From this point on we're able to use the device using exec I/O functions like DoIO().

To shut down the clipboard we just reverse the setting up steps – in other words we close the device using the CloseDevice() function, delete the I/O request structure, and then delete the reply port. As you might expect, all of these steps are carried out from within the framework of my stack-based allocation scheme (see listings 2 and 3 for an I/O request allocation example), and you'll be able to get the full details of the other operations from the clip.c source. Although the setting up and deallocating code might seem a bit like hard work, once the clipboard device is up and running sending commands to it is easy as listing 4 shows.

It's worth pointing out, incidentally, that although the clipboard is IFF based, there are many cases where you do not have to get involved with fully-fledged IFF file handling in order to use the device. Writing text is a typical case in point, as you'll see when you look at the WriteCurrentRecord() routine present in the clip.c source. All that happens is that the routine hand-crafts the IFF clip by writing the FORM, FTXT and CHRS header information (allowing space for the chunk-size and datasize values needed in the header by adjusting the io_Offset value being used). Once the record information itself has been written, the offset field is reset in order to store the size information needed in the header.

LAST WORDS

Well that's about it as far as this particular series goes. Over the last six issues I've discussed record structures, my coding conventions, resource allocation and deallocation techniques, gadget and menu creation, the event handling arrangements that EasyBaseAC uses, and the list-based approach used to represent a database file in memory. For consistency, I've restricted the discussions to the code related to the first (preliminary) version of EasyBaseAC provided in the April issue and whilst, with over 120K of source code to deal with, it's not been possible to go through the code line by line, I hope I've been able to offer sufficient detail of the main ideas to provide some food for thought.

Do remember that the code you've seen was in its very early stages and although I've not come across any bugs as such, some changes have inevitably been made during the last few months. I have, for example, spent time tidying up and generalising a number of the preliminary routines (eliminating some of the global variables used and so on). One important addition has been the introduction of a record marking scheme that allows a subset of records to be defined, and this works internally by changing the node type of the database records present in memory from NT_USER to a newly defined NT_SUBSET value. This has allowed printing and record export facilities to be added where the node type value is used to decide whether or not to write out a particular record.

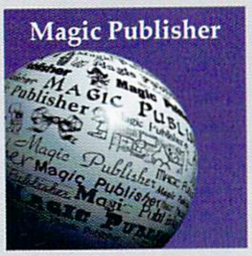
An import option has also been added in order to enable databases with similar field and data characteristics to be merged together, and this is currently being tested. The driving force here, as I've mentioned previously, is to enable the small sets of disk-based function descriptions now being provided with my regular Assembler column to be merged together to form a single function description database. I hope, incidentally, to have this second version of the program available in time for the next issue and after that it'll be time to sit down and plan some of the more sophisticated functions, like search facilities and context sensitive help, that I eventually hope to incorporate. All these things, however, will be stories for another time!

ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...CD-ROM...C



Workbench Add-On Volume 1

The Workbench Add-On CD-ROM is the ideal companion to your workbench. On this CD you will not only find the best programs, that are available for the Amiga, but you will also get them ready-to-run from the CD. In addition to this there is an installer script that installs the desired programs to your harddisk.
The CD covers all areas of interest, all, the programmer, the user, the creative and the gamer will find what they are looking for. On this CD-ROM there are many shareware programs, some of them at a special price, if you get registered. There is e.g. Shapeshifter for 40.- DM (instead of 50.- DM), in addition to this there is a 50 MB Mac partition, so that you can start playing around with Mac applications right away. Then there is PowerPlayer for 20.- DM (instead of 30.- DM), there are, of course, loads of modules with it, so that you can try it right away. AmiWin, the new X11-server for the Amiga is available for $40, instead of $50. You can sa ve more than 100.- DM with this CD. Therefore you only have to send in the appropriate page in the booklet to the author of the program. £24.95



Magic Publisher

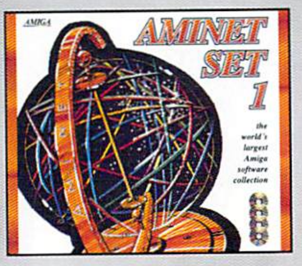
On this unique CD-ROM Set you will find all you need to create nice looking documents. If you want to write a book, if you want to design a poster, if you want to create WWW-Pages for the Internet or layout a magazine, all you need you will find on this marvelous CD-ROM. There are more than 10.000 Fonts (Colour Fonts, Bitmap Fonts, IFF-Fonts, Adobe Fonts, IntelliFonts, Truetype Fonts and DMF Fonts), more than 5.000 cliparts and 150 printer drivers. Many of these are exclusive to Magic Publisher. You will also find a complete installation of PasTex (more than 300 MB), containing all its fonts (upto 600x600 dpi). In order to create good looking documents, there is Final Writer 4 SE and Wordworth 4 TD. Both rated as the best word processors on the Amiga. For creating good looking Internet-WWW-Documents there are all available Free/ Shareware programs for the Amiga, including many backgrounds and special clipart for this purpose. The 100+ pages booklet contains printouts of all fonts and clipart. Aspecial BBS section is also provided. £49.95



Amiga Developer CD v1.1

The official developer CD from Amiga Technologies contains all the material you need to start developing software forAmiga computers. This includes: The CD32 developer package. In addition to the original five disk set distribution you will find the "Build-CD" CD writer package Packages contributed by 3rd parties: The WBPath and ActionFSSM packages, courtesy of Ralph Babel; The Envoy v2.0 developer kit, courtesy of IAM, Inc.; The INet 225 developer kit, version 2, courtesy of Interworks, Inc.; The Kiskometer package, courtesy of Angela Schmidt; The Enforcer v37.64, courtesy of Mike Sinz. Information in support of forthcoming operating system developments. Additional developer material: BOOPSI gadget and image classes; The AmigaOS 2.04 example code, as part of the original 2.04 Native Developer Kit; The RKM 2.04 code examples; The complete set of registered IFF forms; IFF example and stress test files; All IFF packages released by Commodore-Amiga, Inc., covering 1986 through 1992; The camd v37.1 MIDI developer kit; The SANA-II standard package and developer kit; The Installer v43.1 package. International support material: Sample text using the full ISO-8859-1 character set; Translation guidelines. The updated 3.1 Native Developer Kit: "C" and assembly language header files, linker and runtime libraries; System documentation and tutorial texts; Example code covering the Amiga OS 3.0 and 3.1 features; The NewIFF v39 package; The AmigaGuide and DataTypes documentation and example code. Reference material: The collection of AmigaGuide Volume 1 articles, covering Spring 1987 through January/February 1989; The complete AmigaGuide Volume 2 articles in AmigaGuide format, covering January/February 1990 through March/April 1993; also included are the printable issues in PostScript and PageStream format; Hardware related articles; The Includes & Autodocs in AmigaGuide format. £14.95

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Aminet Set 1

Aminet is the world´s largest collection of freely distributable Amiga software. Up to 10.000 users access the vast archives ervery day and countless programmers publish directly via Aminet. Until recently access to Aminet was restricted to international network users. With Aminet Set 1, consisting of 4 CDs, the complete archive is published the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included: Applications, Games, Demos, Pictures, Mods, Animations, Developer-Material, ... It contains approximately 4 gigabytes of software in 12.500 archives and you will enjoy the comfortable user-interface. £29.95



Aminet Set 2

AMINET SET 2, dated November 1995, consists of approximately 4 gigabytes of software in 12.000 archives. Whether you like applications, games, communications or programming, the SET gives you all you need. Easy to use index files and search facilities make accessing it a pleasure. £34.95



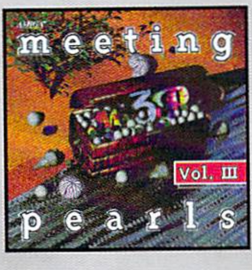
Aminet Set 3

AMINET SET 3, dated July 1996, consists of approximately 4 gigabytes of software in 9.000 archives. Also included are full versions of Imagine 4.0, XiPaint 3.2, OctaMED 5.0 and some commercial games. Whether you like applications, games, communications or programming, the SET gives you all you need. 95 MB Utilities, 79 MB Documents, 408 MB text software, 12 MB Disk/HD tools, 7 MB Hardware related, 756 MB Pictures & Animations, 208 MB Graphics software, 394 MB Graphics & sound demos, 563 MB Games, 64 MB Miscellanecus, 685 MB Music modules, 28 MB Music software, 131 MB Communications, 91 MB Development Software, 88 MB Business software. Easy to use index files and search facilities make accessing it a pleasure. £39.95



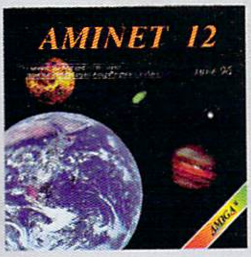
Gamers' Delight II

This CD contains 1070 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers´ Delight will hold you captivated for hours and guarantees long-lasting pleasure. 70 games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive,1 MB free memory and Joystick/Joypad. £26.95



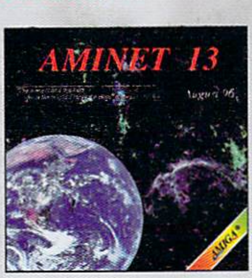
Meeting Pearls Vol. III

The Meeting Pearls Volume III contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 10 MB Packer, Cruncher, Archive Programs · 3 MB CD-ROM Utilities · 21 MB Communication and Network Programs · 5 MB Debugging Tools · 29 MB Development Tools · 13 MB Floppy, Hard Disk ans SCSI Programs · 8 MB Educational Programs · 9 MB Games · 35 MB Graphics Programs · 39 MB Internet Movie Database, Updated Version · 7 MB Midi Tools and Programs · 27 MB Mods · 12 MB Music Programs · 21 MB Pictures · 13 MB AmiTCP and more for Networking · 60 MB Documentation, CD-ROM Databases, etc. · 96 MB PasTeX 1.4 - not previous available on any CD-ROM · 15 MB Utilities · 30 MB HTML-Pages · Collections of datatypes, benchmark programs, icons, programs for amateur radio and electrical/electronic engineering are also included. £9.95



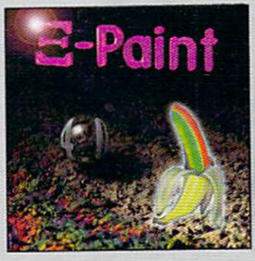
Aminet 12

Still available! £14.95



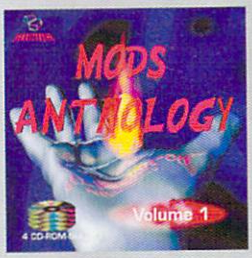
Aminet 13

Aminet CD 13, dated August 1996, consists of approximately 1,1 gigabytes of software in 2400 archives. Since the release of Aminet CD 12 more than 800 MB new software has appeared. The current edition has a special focus on animations, several hundred animations from the internet were included. User friendly access software makes the Aminet CD 13 a pleasure to use. £14.95



XiPaint V4

XiPaint 4 is the new version of the leading edge, 24-bit paint program. It's suited to the demands of novice and expert alike, and within a short time, you too will be able to produce colourful and creative art in 16.8 million colours. This version of XiPaint features animations as well as easy-to-use raytracing-capabilities.
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NetNews Offline Vol. 1

NetNews Offline Vol. 1 is the first disk of a new bimonthly published series of Amiga CD-ROMs which contains all Amiga-related newsgroups from the internet. Every volume features about 50.000 articles which contain hot rumours, important information about all aspects of the Amiga, press-releases, discussions and flame wars, ... A newsreader is included. NetNews Offline is the cheap alternative of getting in touch with Usenet. £14.95

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Build

When people think of the connotations that go along with programming your own games, you're supposed to be some kind of spectacle-wearing gimp who has nothing better to do than sit on your rear-end typing in lines of procedures one after the other. Well, you maybe right, although you don't have to be a super techie to be able to create simple games. All you need are a few ideas.

The basic principle is to put your ideas in to practice nice and quickly. I remember at primary school when we were asked to make a model from clay. Before I started I always had these excellent pictures in mind of what I wanted to create, a bit like some kind of famous sculptor, but after a good few hours I ended up with one of the ugliest, messiest, things which didn't even look like clay anymore.

It's the same principle with creating games. You can have the most amazing ideas but you know deep down they're not really viable. This is where Game Engine comes into the picture. This package will help you in transforming simple ideas into professional works of art – well, almost.

Game Engine

Game Engine is by a brand new company entitled Aspire 2 who is certainly new to me. If this is its first product then it's by no means a bad one – it's actually quite impressive.

However, the engine itself is used only for platform games, which may disappoint a few people because, unfortunately, it's not the most popular genre around today. Having said that, though, there have been many quality platform games in the past such as Superfrog, Fire And Ice and Pinkie.

The actual program is split into four modules – object, map, animation and background editor. Once all these modules contain data, the fifth module can be used to tell the computer where it can find certain files – this is called the Construction editor.

All the modules are displayed as boxes on the menu screen so it's easy to access the different parts which make up your game.

The object editor is very similar to the one which comes with Amos. You get a small window in the top corner of your screen and all the tools and gadgets are displayed at the foot of the screen. You can import various palettes and pictures from IFF formats which enables the use of outside paint packages such as Personal Paint or Dpaint. Although the editor itself contains drawing tools, you may find it easier to use old, familiar packages and import your work across. Game Engine will automatically covert your images as individual blocks so there's no awkward frame grabbing or positioning involved.

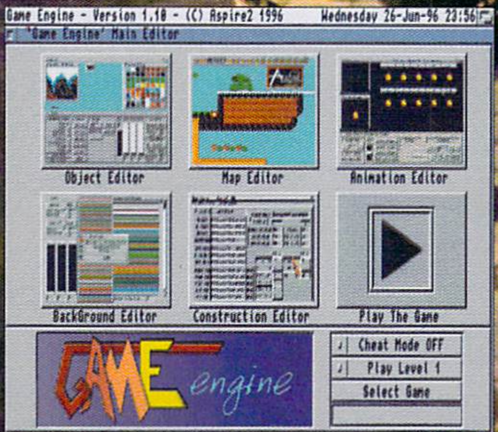
The map editor allows you to edit the map blocks so you can define platform layers and heights. The menus are all laid out cleverly so it's easy on the eye, especially if you are going to be using a certain editor for a lengthy period of time, and once again you can import and export the screens for use with another art package or from the included object editor.

The animation editor is probably the most awkward part of any game development because you have to be almost pixel perfect to make your game look as professional as possible.

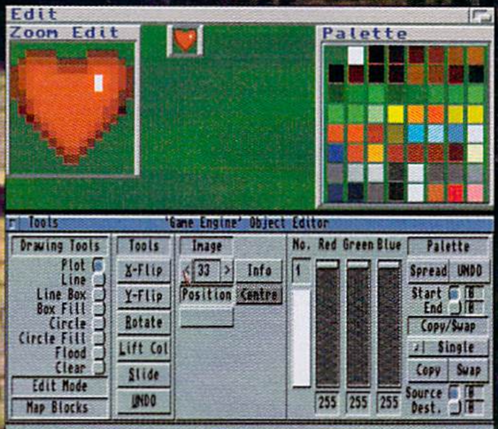
The screen looks identical to that of the object editor, although instead of one large window at the top corner, there are many smaller ones where you can place each frame of an animation. It features a thumbnail feature so there's no annoying use of a magnifying option. All the playback options are gathered together in a CD player-like fashion with play, stop, forward, rewind and pause buttons.

The background editor is used for giving a layered effect on the actual backdrops behind the map. You can load in an ordinary pattern from an art package with a copper palette or otherwise.

The fifth part is the construction editor. You can alter the smaller effects for your game such as music, SFX, gravity, friction, scrolling, and aspects such as



The main menu is split into four different sections. Each one leads to a new aspect of game creation



The main window is situated at the top of the screen with the drawing tools at the bottom

ing blocks

how many times you need to hit the enemy before it dies, enabling the use of tough end-of-level guardians.

Once all the aspects of the game have been completed and thoroughly tested,

Andy Maddock reviews a new engine to help all those would-be programmers

you can put what you've completed onto disks. You need to define where your files are if they are stored on your hard drive and then instantly copied onto floppies, along with a suitable startup sequence which will make the disks bootable.

If you've always wanted to create a simple Amiga game without the hassle of knowing how to program or relying on someone else to do the dirty work, then Game Engine could be just what you're looking for. You don't have to be an expert to use Game Engine because the manual will explain all the finer points in great simplicity.

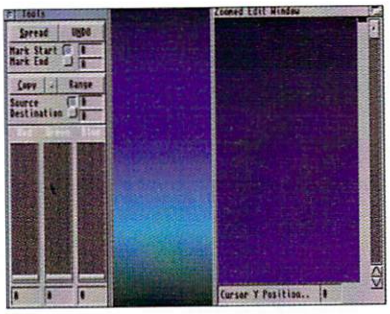
On the other hand, if you're interested in the whole idea of programming then this could be a good place to start as it gives you an idea of what's involved in creating a game.

...you don't have to be a super techie to be able to create simple games. All you need are a few ideas.

Experienced programmers should really ignore this program because they could probably handle a much harder programming language and consequently come up with better results. Yet, for such a simple package, Game Engine comes up with some surprising and effective results which can easily be passed as Public Domain, and may even be looking towards a commercial release.

If you bear in mind that you can only generate platform games then Game Engine would be an excellent purchase and one which newbie programmers would be well advised to take a look at.





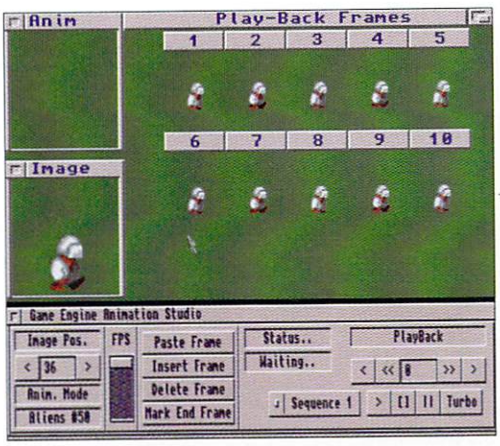
To add more effect to your background screens you can choose a palette to complement your levels

Game Engine can be ordered via mail order only and at £24.95 you should seriously think about spending your hard earned cash. It's a must for beginners new to the programming department.

Contact the following address for more info:
Aspire 2, Strathspey, Pentre Hill, Flint Mountain, Flintshire, CH6 5QN or phone/fax on 01352 761798



The background editor is used by cutting and pasting different blocks - like a paint package



To animate your sprites, you draw each frame in the box and paste them onto the main screen

Bottom line

PRODUCT DETAILS

Product	Game Engine
Supplier	Aspire 2
Price	£24.95
Tel	01352 761798

SCORES

Ease of use	89%
Implementation	88%
Value For Money	86%
Overall	89%

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This month **Paul Overaa** takes you through those all-important steps of creating an **ARexx** macro

ARexx for beginners Part 3

Command performance

Having had our first glimpse last month of an ARexx script talking to a program (the ACRexx utility), it's time to look at these communications issues in more detail. The important thing to understand at this point is that when it comes to the various commands that make up a program's ARexx interface, there is little or no consistency around. Just as most Amiga programs are designed and programmed differently, so the command set that makes up the interface also varies from program to program. This is true even for programs which have similar uses. The commands that the Wordworth word processor responds to are different from those used by, say, Final Copy. And both of these are different again from the Cygnus Ed text editor!

One of the difficulties then, as far as providing practical examples is concerned, is that although there are plenty of ARexx controllable programs around, not all Amiga users will have access to the same type of software. And if, for example, you are a user of Softwood's Final Copy word processor you won't want to read too much about Wordworth-based examples (and vice versa).

Luckily, there is one program that everybody does have and that's the ED text editor. ED has never been a particularly friendly text editor to use but in recent years a number of improvements have been made. Mouse control has been added along with menu and function key support, a proper file requester, customisable configuration files, and even a close gadget. Perhaps the most important addition, however, was the inclusion of an ARexx interface.

Commands

In normal use, ED provides two types of commands called 'immediate' and 'extended'. In immediate mode the various keystroke-based commands are executed straightaway, but with extended mode you press the ESCape key and then enter the extended command at the bottom of the window when the asterisk prompt appears. One of these extended mode commands, called rx, is used to run ARexx scripts, and within those scripts many of ED's extended commands can be used to remotely control ED's editing facilities.

Table 1 lists some that are particularly useful and you'll find all of these commands, plus others, listed in the Editor section of the AmigaDOS manual that came with your Amiga. (Bear in mind when reading about and using these ARexx commands in your scripts that you do not need to worry about the ESCape key character prefixes since these are only necessary when issuing extended commands at the keyboard. For example, the 'move to top of file' instruction – listed in the above mentioned manual as ESC,T – would in an ARexx script just be written as 't' or 'T'.)

Your first macro

ARexx scripts that are intended to be used with, and executed directly by, an applications program like ED tend to be called 'macros' or macro scripts. What we're going to be doing this month is creating a few easy ED macros, starting off with one that will automatically insert your name and address at the start of a text file. Now, because we'll never be quite sure whereabouts the cursor will be during file editing, the first thing to do is move the cursor to the top of the file using a 'T' command. After that we might try ED's 'I' commands to insert the text itself. Here's one possible script that looks as though it would do the job:

```
/* test1.rexx */
'T'
'I/John Smith/'
'I/Some Road/'
'I/Some Town/'
```

To create your own version of this macro you'll need to open a Shell window and then enter either of these commands:

```
1>ed rexx:test1.rexx
```

or:

```
1> ed s:test1.rexx
```

Why the choice? It's because by default ED always looks in the drawer assigned to rexx: for the scripts that it runs, but since this is usually the Workbench S directory, either command will result in your script being stored in the place where ED can find it. So, create the script and save the file, then quit the editor. Having done that use ED again – this time either to open a new file or to load any text file that you have handy. Press the ESCape key and, when the asterisk prompt appears, enter this command:

```
*rx/test1.rexx/
```

(note: Please remember that you should not type either the 1> or the * prompts we've shown – they've only been provided as a point of reference since you'll see these, or similar, prompts on your screen).

The minute you hit the return key, ED will find and run the macro and your name and address will be inserted at the top of the file. Unfortunately though, the lines of text will appear in the wrong order and this is because ED's 'I' insertion command puts new lines before the current line rather than after it. One way of getting around this would be to move the cursor down to the next line each time a line of text is inserted, like this:

```
/* test2.rexx */
'T'
'I/John Smith/'
'N'
'I/Some Road/'
'N'
'I/Some Town/'
```

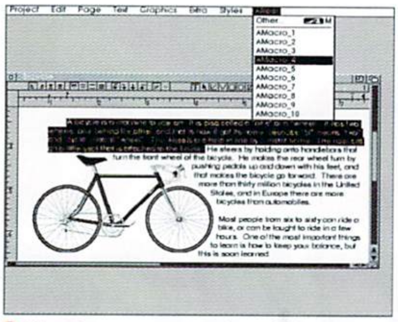
but it's actually easier to use the 'A/' (insert after) form of the text insertion command and write the script as:

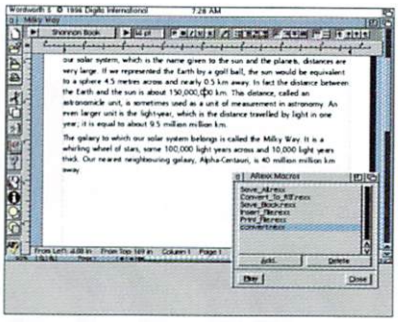
```
/* test3.rexx */
'T'
'A/John Smith/'
'A/Some Road/'
'A/Some Town/'
```

If you try running this macro you'll find that the lines of text are now inserted in the correct order. And that's it. Providing everything went according to plan you will have created and run your first macro (needless to say if the macro didn't work then you'll need to load it back into ED, find and correct the mistake, and try again)!

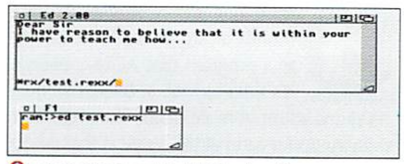
B	Move to bottom of file
D	Delete current line
I/<string>/	Insert a line with specified string before the current line
A/<string>/	Insert a line with specified string after the current line
J	Join current line with the next line
M <n>	Move to line n
N	Move to next line
T	Move to top of text

Table 1: Some ED ARexx commands

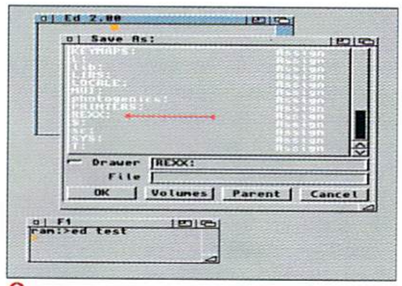




There's no guarantee that similar types of software packages will have similar ARexx interface commands – especially if they are from different software houses!



Even the humble ED text editor, a program that everyone has, includes an ARexx interface



Often, if a macro script contains an error it just will not work. Unfortunately, you will not always see the sorts of helpful error messages that ARexx normally provides when scripts are run from the Shell

USING VARIABLES

When you look at the description of ED's text insertion command it's easy to come to the conclusion that it only allows you to use fixed text strings in your macros. In actual fact, you can use the contents of variables just as easily. The syntax of ED's insert command looks like this:

```
A/ <text string> /
```

In other words, the command that ED expects to see starts with the letter A followed by a slash sign, and after that comes the text string that ED inserts into the file currently being edited. The terminal slash character is there simply to tell ED that the end of the string, and the end of the insert command, has been reached.

Now, provided the resulting command that gets transmitted to ED is consistent with this format, ED will neither care, nor in fact know, how the ARexx script created the command string. In other words instead of:

```
'A/John Smith/'
```

we could equally as well have sent the command to ED using:

```
name='John Smith'
'A/' name '/'
```

An alternative way of writing the test3.rexx name and address insertion macro then would be to use this sort of code:

```
/* test4.rexx */
name='John Smith'
road='Some Road'
town='Some Town'
'T'
'A/' name '/'
'A/' road '/'
'A/' town '/'
```

SOME UNWANTED SPACE

If you create and run the test3.rexx script you'll find it works much the same as before. One difference, however, is that each line of the inserted name and address will now include a blank space at the start. The reason this happens is that when ARexx sees a number of static text strings (like 'A/') or variables written together on the same line, it effectively creates a new string by joining the various items together, separating them using spaces. In the case of our example script, ARexx therefore puts a space between the first slash character and the variable being used – and ED then assumes that this space is the first character of the string to be inserted into the text.

Luckily, you can force ARexx to join text strings together without introducing additional blanks by using something called the ARexx concatentation operator ||. In other words, if we write the text insertion commands in the form:

```
'A/'||name||'/'
```

then the inserted text line will correspond exactly to the contents of the variable being used. The following script therefore produces a result identical to that of test3.rexx;

```
/* test4.rexx */
name='John Smith'
road='Some Road'
town='Some Town'
'T'
'A/'||name||'/'
'A/'||road||'/'
'A/'||town||'/'
```

The use of variables can make even the simple text insertion scripts we've been looking at surprisingly powerful. By adding initial 'A/' and terminal '/' strings to the loop example of last month's instalment we could, for instance, produce this script which inserts a pounds to ounces conversion table into a text file:

```
/* test5.rexx - lbs and ounces table insertion */
do lbs = 2 to 12
        result=lbs*16
        'A/'||lbs 'pounds =' result 'ounces/'
end
```

COMING SOON

We've seen so far then that there are two quite separate issues connected with ARexx programming: Firstly, the use of statements such as ARexx's do/end loops which form part of the ARexx language itself. Secondly, there are the application's program-specific statements, like ED's 'T' and 'N' commands, that though included in scripts, are not really part of the ARexx language at all. When ARexx sees these sorts of statements it just assumes that they're intended for an external application and transmits them.

The bottom line then is that there are two, relatively separate areas that you as an ARexx coder need to come to terms with: The ARexx language and the interface commands offered by the particular application programs you wish to use. In order to make the most of what ARexx has to offer, however, it's necessary to learn quite a bit more about the language, and one of the most important issues here is to learn how to use a program building block known as the ARexx function. That, by the way, is the subject on the agenda next month.

MISSING ADDRESS

Have you noticed that this month's macro scripts have not used the ADDRESS statement discussed in the last instalment? The reason is that it isn't needed – when scripts are started under the control of an applications program (ED in this case), any external commands that a script issues will automatically be sent back to the application that started the script running in the first place. This is the big difference between standalone scripts which you (the user) execute using the Shell-based RX command, and macros which are run directly by an applications program.

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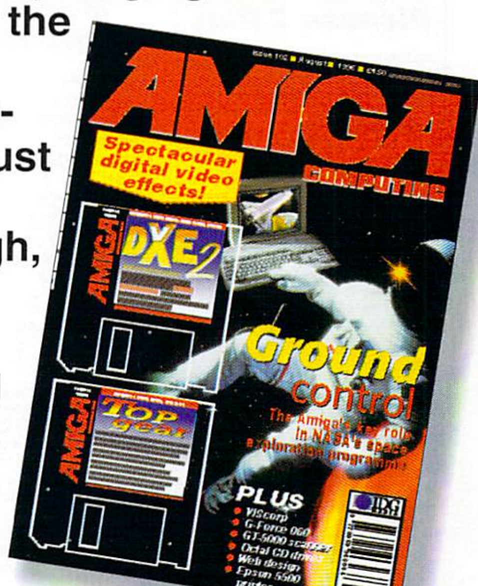
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SYSTEM

Your essential guide to Amiga gaming

News



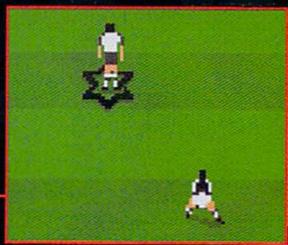
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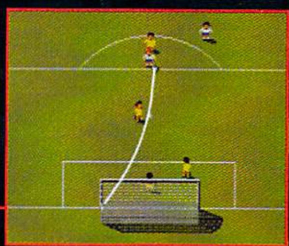
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Harry's Balloons



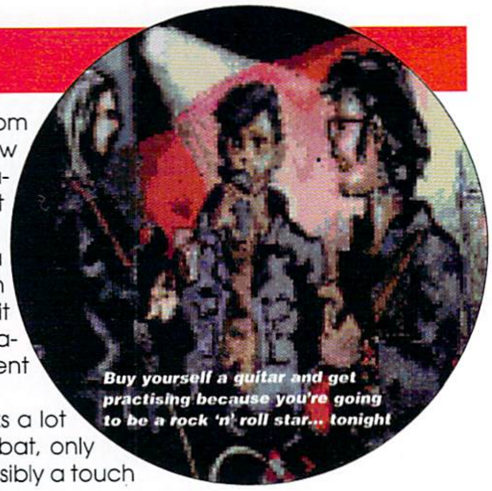
Harry is a hedgehog, and he will allow you to play with his balloons on one condition – that you don't pop 'em!

SYSTEM

news

By Andy Maddock

Imported goods



Buy yourself a guitar and get practising because you're going to be a rock 'n' roll star... tonight

Mirage Software, which comes all the way from Poland, has recently been working on a few games titles which are looking quite intriguing and have generated great interest around the office.

The first is called Super Taekwondo Master, which is a fighting game, as you can probably tell. Although Taekwondo isn't the most popular sport over here, it seems pretty big in Poland because at the end it features plenty of digitised pictures of the development crew doing some special moves and actions.

The whole game is actually digitised – in fact it looks a lot like Mortal Kombat, only clearer and possibly a touch smoother.



The second game in development is slightly more interesting and is called Rockstar. It looks a bit like an adventure game although it's all in Polish so I'm probably wrong. I think the idea is to form a band, visit the local pub, buy some equipment, practice, do some gigs, hopefully get signed, get in the charts and then earn loads of money. Good plan. Anyway, these are two titles which we will definitely cover within the next month or so. Prepare to learn some Polish.

As you can see, the characters are all digitised and actually look quite good

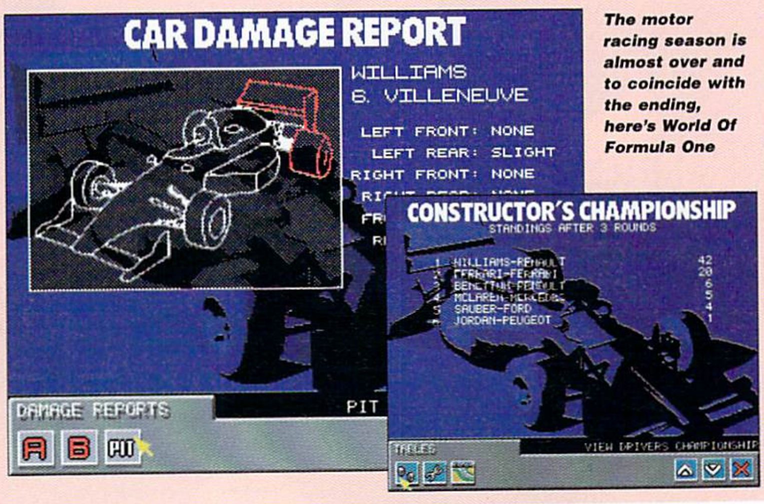
Cars and things

Apex Systems, who brought you World Golf which received a pretty decent score about two months ago, is back with some fantastic news which will please any Amiga gamesplayer.

Its next release is going to be called World of Formula One Grand Prix and, basically, if you can't guess, it's going to be a Formula One Grand Prix manager-type simulation. It's scheduled to be released to coincide with the final race of the season at Suzuka in Japan on 13 October.

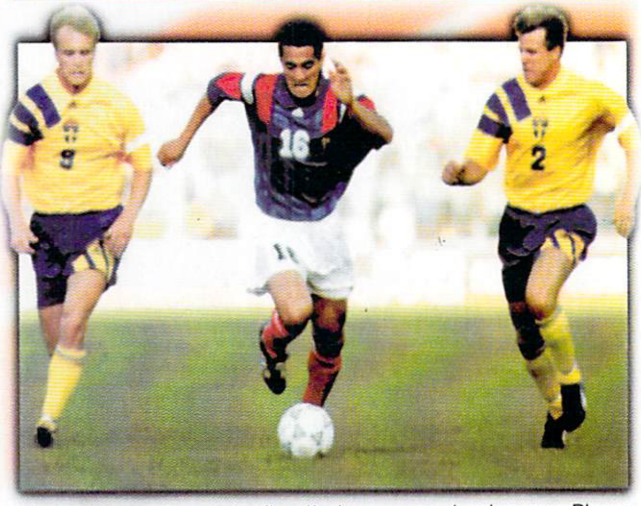
The game will consist of all things Formula One like, being able to select tyres, suspension, wing degrees and all things way above my head. Don't worry, though, as the game won't be specifically for car buffs – it's best feature will be its simplicity.

Apex Systems was heard to say: "It's Theme Park only with racing cars!" Look out for a review soon!



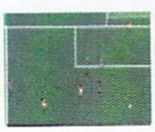
The motor racing season is almost over and to coincide with the ending, here's World Of Formula One

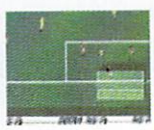
You kickin' off, mate?

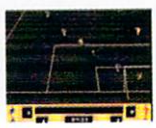


Anco has returned after its two recent releases, Player Manager 1 + 2, and has surprised me by releasing an entirely new game entitled Kick Off 96.

However, just because the title reverts back to the days of the old and unforgettable Kick Off series, the game will not be as the same. It will be set in a 3D environment and offers arcade and simulation modes, four camera angles, 8000 frames of animation, 49 international and 750 Premier League teams, and 15,000 real-life players. Sounds good doesn't it. We'll have it next month, so stay tuned.









Championship Manager 2 is here!

Ooh dear, I lied – again. Everything seems to be going wrong because I have promised you a full review of Championship Manager 2 for the last four months, and every month Domark tells us "It's almost finished..." Well, apparently, the punters who ordered the game in advance are beginning to ask for their money back, so Domark had better be careful in case everyone gets so cheesed off and nobody buys it.

Anyway, we've told you a million times before and we'll tell you again. We'll have a full review next month. But do me a favour – don't hold your breath. Good win for England though eh?



Er, here's another screenshot!

SWOS guide – *part two*

If you like our first part of the Sensible World Of Soccer guide featured right here in this very issue, then you will like part two even more.

Next month we will show you how to finally achieve the international coach status and become one of the world's leading managers. Not only will we give you tips for your team selection, we'll also tell you how to win the European Championships and World Cup with ease. If you're having trouble with Sensi and want to get to the international bit quickly, then be sure to read the final part of our Sensi guide. Don't miss out. Oh, and we haven't forgotten about part two of Simon the Sorcerer either. Honest. It's here as well.



Here's good old Sensi again. Part two is going to be absolutely fantastic so get ready!

System Selections (past)

Total Football

Total Football was reviewed about two months ago and is certainly one of the better football games around today

XP8

Shoot-'em-ups have had a great absence from the world of Amiga but now XP8 is here there's no need for another

System Selections (present)

Sensible World of Soccer – Euro 96 Edition

Sensible World of Soccer is probably the finest Amiga game ever to grace the delicate monitor screen. Thousands have enjoyed it and thousands more will enjoy the special Euro '96 edition.

Chaos Engine 2

This is one of the few arcade/platform/adventure-type games which have been featured so rarely in past issues of system, although here's one to end it all!



The Bitmap's have probably made a bigger impact on the Amiga scene than anyone else, and they're back!

System Selections (future)

Alien Breed Killing Grounds

From what we've seen, this is a future selection. The first was good, but this one is even better. We may have it next month so you'll get an idea if it will receive the elusive title of 'System Selection!'

Primal Rage

We have no idea what this is going to be like, but it looks like being a future selection, oh yes.



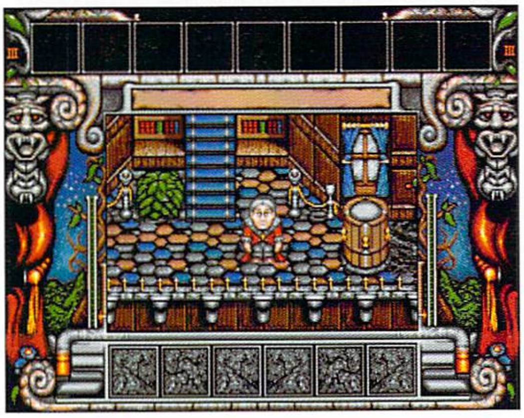
We've got a Primal Rage arcade machine here in the office right next to the boardroom. Don't ask me why

Next Month

Next month seems a million miles away, but lined up for the issue are Championship Manager 2 (maybe!), Kick Off 96, Alien Breed 3D II, the next part of our massive SWOS guide, and lots and lots of fantastic things which will indeed be fantastic. I can't wait, can you? What do you mean yes?



We might have this next month if we can keep in Team 17's good books



The angle is sort of a side/top-down/half suspended/ mid-air/back row of a stand/quite far away view



That bloke reminds me of our old science teacher. "Sit down at the back young lad." Eee, just like him

GRAPHICS 88%
SOUND 91%
GAMEPLAY 91%
OVERALL 92%

valhalla Fortress of Eve



Reviewed by Andy Maddock

This is the third speech adventure from Vulcan Software, the team responsible for the previous two Valhalla games, not to mention Timekeepers and Hillsea Lido.

Most people, especially other workers in our office, remember Valhalla, but not because of its excellent plot, smooth graphics and superb gameplay. It's simply the fact that it was extremely annoying. I think everyone now knows it featured a small bloke who just wouldn't shut up. Every time you picked up an object he'd gladly inform you "I've got it." Also, to make things worse, if you turned the volume down it lost some of its appeal, so everyone just had to put up with it.

It looks like our staff are in for even more abuse because Valhalla – Fortress of Eve has arrived. Well, it had to happen didn't it. The actual plot takes a very strange turn because the King is getting sexually stimulated (?) and his attention is beginning to turn to some lovely ladies (and here's me thinking it's going to be a proper yawn fest).

So that's the plot. The little King is after a bird. That is, as they say, the bottom line. But he's in

PUBLISHER	Vulcan Software
DEVELOPER	In-house
PRICE	£17.99
DISCS	6
HD INSTALL	Yes
SUPPORTS	All Amigas



Woo! Oh, I thought that was a naked woman

Reverse angle play

The only gripe I have is about the graphics. Even though the change of playing angle is a completely new challenge, I always liked the top-down view, although that's probably just me. The graphics always seemed really good in the past versions, but maybe they just fancied a change or something. If you think about it, if another version of the game had been released with the same graphics and samples, everyone would have probably complained. So it's all just a matter of opinion. There will always be someone somewhere who won't like it.

for a big surprise because his plan is going to be tougher than he thinks. Firstly, he considers himself handsome even though he looks remarkably like the back end of a donkey and, secondly, his island is absolutely birdless. Consequently, his chances are looking pretty slim at the very least.

The evil Queen has kidnapped all the ladies off the island, leaving several of the peasants looking very unhappy indeed. The Queen has carried out this evil act because she wants you to marry her daughter, Ezmerelda. However, she's not the raven-haired temptress you'd expect, although I still think he's setting his sights too high.

Anyway, the game starts with a surprisingly new angle whereby the young Valhalla bloke doesn't have to strain his neck muscles to let you know what's happening. It's amazing – you can actually see his legs! The game is now viewed from a 3D side view.

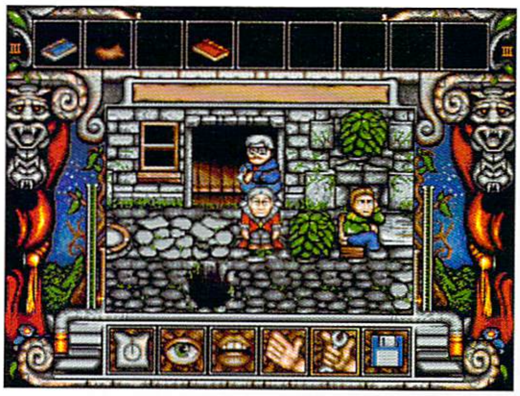
As you'd expect, your job is to tour around solving puzzles along the way, gaining information by talking to everyone you see. You'll be given loads of clues throughout your adventure, but most of them won't make sense until you complete the first part.

The main display for the game is in the centre of the screen, as usual, your status bar is situated down the left-hand side of the screen, and your inventory is placed along the top of the screen. You can also scroll through the various action icons at the foot of the screen. You can view the map of the area, look at things, talk to people, pick up objects, use objects and save the game. The most effective method of moving the King is by using the mouse, with a pointer popping up to show you where you can move to.

As with the rest of the Valhalla series, you can't fail to be impressed with the amount of sampled speech – and there aren't many games which take advantage of the Amiga's ability to do this.

Final word

The good thing about Valhalla is that there are more than enough levels and challenging gameplay to warrant the price tag, and it's certainly one any Valhalla fan shouldn't miss. It looks like the Portsmouth-duo has come out tops once again!



Doesn't the King look smart in that nice purple robe thing. He might be 'on' with some birds in that



There's always loads of cheese knocking about. I don't know if it's a fetish from Portsmouth. Who knows

'you can't fail to be **impressed** with the amount of sampled speech – and there aren't many games which take advantage of the **Amiga's** ability to do this'



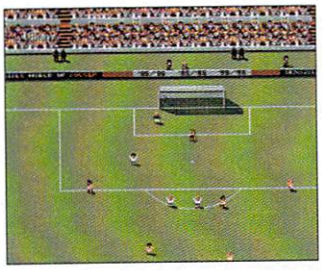
See, even Kings like the odd frame or two of pocket billiards



A pig. A big fat pink pig, wallowing in mud and swill like everybody's business. Great

By Andy Maddock

Sensible World of Soccer



You too can recreate the delights of the Euro 96 competition, but now you can win it



They're the kind of leading goalscorers you expect to be sitting at the top



Ooh, it's going to be a tough match. It's a good job you've got your full squad



When dealing in the transfer market always make sure you offer lower than the exact price

Andy Maddock brings you the first part of a two-part guide to running the **best** football team in the country

Okay, so it's embarrassing to admit that you are rubbish at Sensi. It's probably the most competitive game on the Amiga, but if you keep getting hammered at it by a six-year old then I think it's about time you read this, the first part of our complete Sensible World Of Soccer guide.

The best advice I can give to start with is to refuse to start with your favourite team. It may seem a strange way of playing Sensi, but it'll give you something to aim for. If you support Manchester Utd, start with someone like Bury so you can aim for that job. You'll be surprised how much longer you'll play the game.

However, whichever team you start with, whether it's Barnet or Blackburn, your first mission is to take a trip to the transfer market to pick up some bargains. Before that, though, you must look at your squad's statistics. Even though the game claims that a player's ability shouldn't be judged by the player's value, it helps immensely because, obviously, an £8 million player is going to be far better than a player valued at £250,000.

Start by putting all your unwanted players, that is the cheapest, on the transfer list and get as much as you possibly can for them – don't let them go at silly prices. Now, depending on what team you are you will be able to work out which price bracket you can allow for yourself.

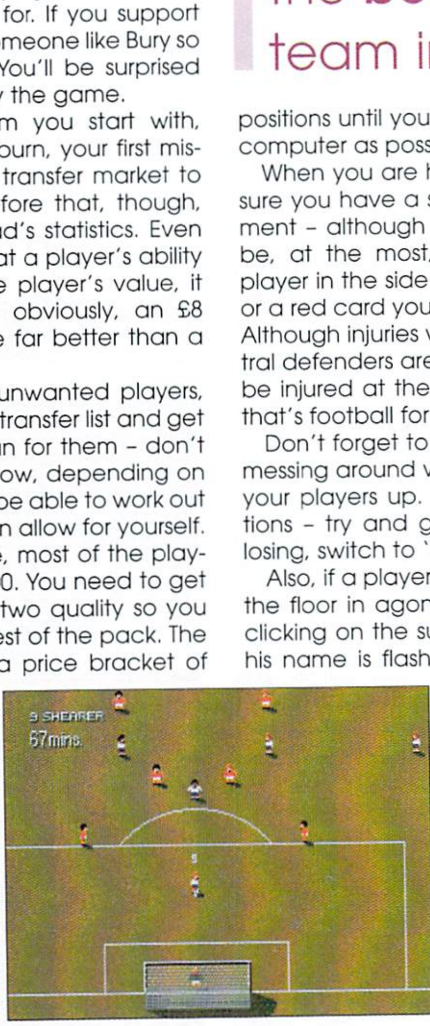
If you are in division three, most of the players cost around £130-200,000. You need to get your players up to division two quality so you can remain ahead of the rest of the pack. The division two players have a price bracket of around £160-300,000. This is the price at which you need the players. You can part exchange some of your really poor players, but make sure you bring your price down in relation to this value.

Always start by adding strength to your weakest departments. Now, you must have a dabble with your squad and keep chopping and changing the players and their positions until you get as many 'ticks' from the computer as possible.

When you are happy with your team, make sure you have a spare player in each department – although not just any player. He must be, at the most, as good as your weakest player in the side. If anyone should get injured or a red card you can then replace him easily. Although injuries will occur regularly, both central defenders are strike partners and will rarely be injured at the same time. If they are, then that's football for you.

Don't forget to test formations. Don't bother messing around with tactics as they'll just mess your players up. Stick to the standard formations – try and go for a '5-3-2' and if you're losing, switch to 'Attack'.

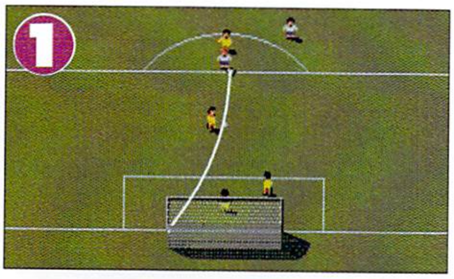
Also, if a player should start rolling around on the floor in agony, check that he's alright by clicking on the sub bench. If the cross next to his name is flashing, sub him right away, but if it remains normal don't bother substituting because he may get better.



The best option available to you when you take a penalty is to blast it into the corner

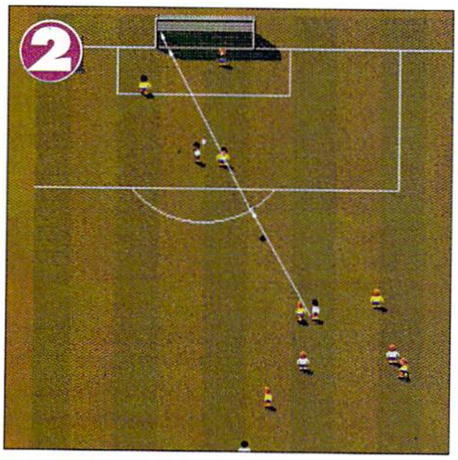
Hint: If you think your squad is really good and you begin to lose easy matches (in coach mode), rotate through the spare players to see if there is a good player you have left out. This is usually the case, especially if he's just returned from an injury or suspension and you don't know about it.

How to score



1. The bland way

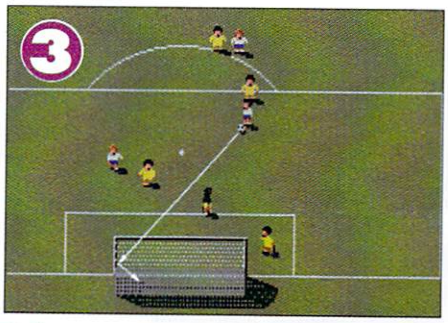
The bland way is usually the most popular with players who aren't particularly good at the actual arcade part. It just involves the player running directly down the centre of the pitch and then curling the ball left or right. If you hit it with enough power the ball will go in.



There are four easy ways of putting the ball in the net and the combination of all will make you look as though you know what you're doing.

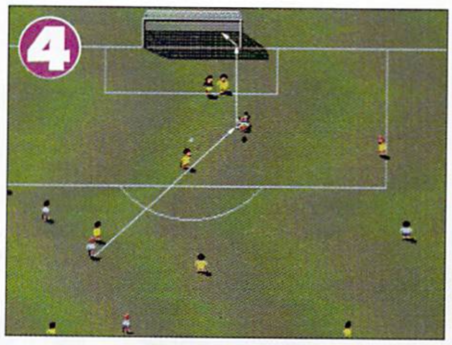
2. The spectacular way

The spectacular way looks the best. All you have to do is cross the half-way line about two-thirds of the way across the pitch and just welly it with full power, while facing diagonally towards the goal. If you hold the joystick in the opposite direction it should bounce under the keeper. It's a difficult way to score, but if you manage it at least twice you'll get the hang of it. Also, it's a good way to beat the better keepers because they don't seem to expect it.



3. The easy way

The best way is to conjure up a sweet passing move, making sure you give it to one of your strikers while they are lurching outside the 18-yard box. Now, if you run into the box you can kick it out of the keeper's reach into the far corner. (It looks great if it bounces in off the post, too) Obviously, if you run in at the wrong angle it won't work, so keep going and wait for the keeper to come out. You'll need quick reactions, but you should be able to bend the ball around him.



4. The slide way

If you have a fast striker and winger then this method is superb. The idea is to run down the wing with the ball until you are approaching the 18-yard box. Cross the ball diagonally while adding a little bit of curve away from the goal. This should be enough to entice the keeper out and leaves one of your strikers at the far post. You will then need to slide in otherwise you will get tackled. You can also use the left and right sliding method with the ball, depending where you are in relation to the goal.

Tips in the game

1. At the end of a season, when a better job offer appears, consider it. Now you must go to the transfer market and buy that club's worst player for some money and exchange ONE of your best players for him. Only exchange one player and not two because when the following season gets underway, one of your players will disappear off the face of the earth – a bit like Paul McGrath. Keep repeating this every week until your new team is awesome.

2. When playing the game, boot the ball up the pitch towards the goal then, when it's on its way, keep your finger on the space bar and press 'R' for replay. When this finishes the game will resume and the ball, providing it was on target and you let go of the space bar, will fly into the back of the net. The keeper doesn't see a thing.

3. Your reserve and trial players are very important. The players on trial will need some first team games to become a reserve, and the reserves can become first team players with a value. To get the most out of your young lads you need to put them into a game which doesn't mean much. For example, if you're top of the league and you're playing a rubbish side then rest one of your main strikers and stick in a reserve striker. If he does reasonably well he'll be awarded a value of £5000. Keep repeating this process with different players, especially with the second legs of cup matches.

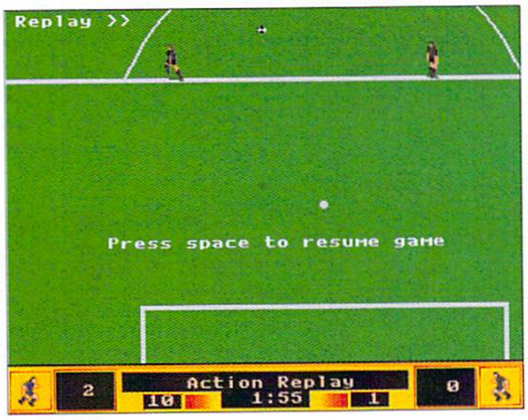
Also, at the end of a season, when you know you won't get relegated or promotion/champions, replace your entire first team squad with reserve and trial players – that will boost their value.

4. Go and buy a really expensive striker and select a reserve striker from their side too. Now put the money down to zero and exchange one of your decent players for both of them. With a little bit of luck you will have your new player and your old one, and the reserve will be stuck at his old club. Hurrah!

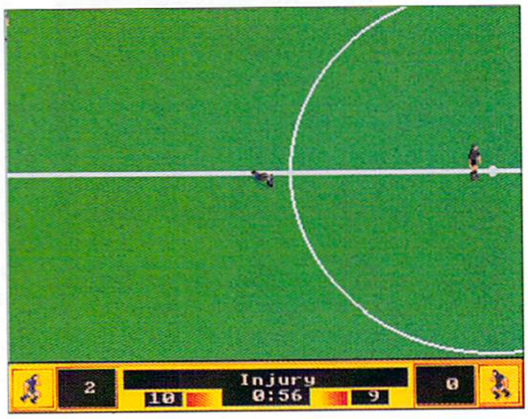
5. If you ftp to your nearest Aminet site you will able to download two programs to aid you in becoming the greatest SWOS manager.

Or, via a browser, enter the URL:
http://src.doc.ic.ac/public/aminet/info/www/browse.html

- SwosEd V1.2 – this can be found in the directory game/patch and will enable you to edit the entire game including team and player's names and values. It uses MUI so it's user-friendly
- SwosEdv2 – this is another good editor which allows you to mess around with players' values and general details. Once again, it can be found in the game/patch directory.



Instant replays can be achieved simply by pressing 'R' on the keyboard



During the match, your players can be susceptible to injury, therefore you should select three decent subs

GRAPHICS 86%

SOUND 40%

GAMEPLAY 90%

OVERALL 86%

Kick Off 96

Reviewed by Hugh Poynton

PUBLISHER	Anco
DEVELOPER	In-house
PRICE	£19.95
DISCS	3
HD INSTALL	No
SUPPORTS	All Amigas

"The action rockets along at the pace of an England Vs Germany match with two minutes to go until penalties."

You've seen it on the telly, heard Skinner and Baddiel sing about it, and doubtless you've been involved in one of those endless pub conversations about whether or not Tel should have brought on substitutes for extra time. So now play the game. Kick Off 96 is Anco's new release and it offers you the chance to bring football home.

Kick Off 96 is a pretty ambitious game, and is chock full of options. Rather than just playing the European Cup, you have the option to play any one of 49 International squads and 750 European premier division clubs (even Aberystwyth FC), and you can create your own league and cup competitions to play in. A particularly fun little touch is the 'dream team' option, which allows you to pick 16 of the best players from nearly 800 European football clubs for your squad.



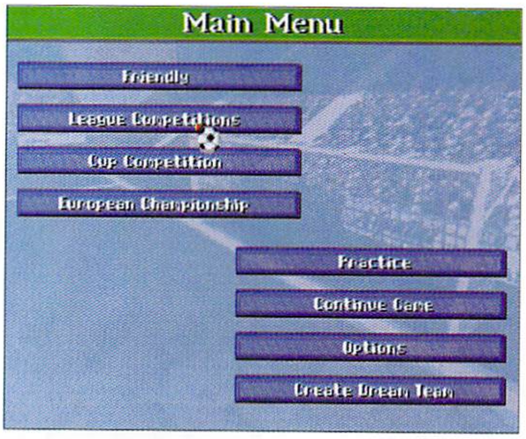
As you can see, the Premiership can easily be developed with a little creativity

Just imagine Gjgla from Albania's Shkumbini P playing with the illustrious Mazza from Cailungo of San Marino...

Another welcome option to the game is that you can choose whether or not to play in 'simulation' or 'arcade' mode. In simulation mode you will be penalised for fouls and receive injuries, whereas in arcade mode the players will shoot around 20 per cent faster than the normal game speeds.

In this respect the game is sumptuous. There is an impressive array of players to pick, teams to play, and competitions to enter. Visually, the game is somewhat of a rough diamond – there are good points but also a fair degree of bad points. On the plus side, Kick Off 96 comes with a 3D option which definitely sets it above the competition. This 'Gantry view' follows the action looking down the pitch, with the players and ground narrowing with perspective, adding to the realism and visual impact of the game.

However, despite this there are a few letdowns with the graph-



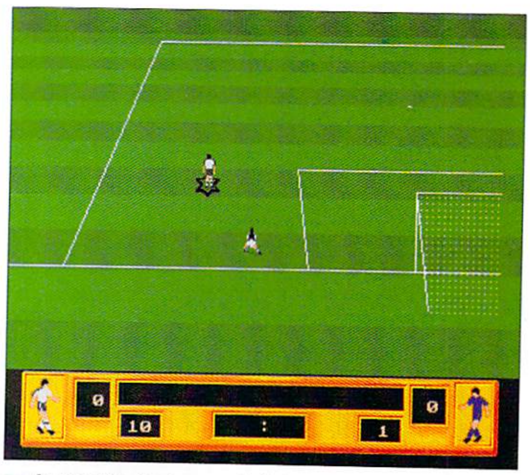
There are many options to choose from including hosting Euro '96, even though the tournament has finished

Hard fought battle

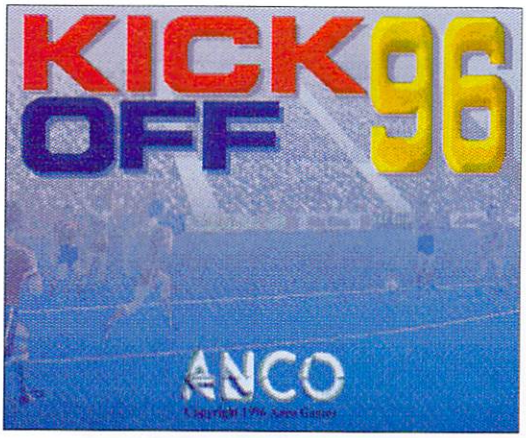
I also found that controlling the players wasn't so much difficult as challenging. The players run around at such a speed that getting them to intercept the ball can be pretty hard work. Like a few football sims, the ball doesn't 'stick' to the feet quite as well as it could, and changing direction when running with the ball has to be done quite carefully, otherwise the ball trundles off into the clutches of the nearest Holland defender.

ics. Most noticeably, it doesn't feel like there is enough to look at on the screen. Apart from your status bar at the bottom and your cool looking little men shooting around the pitch, there isn't that much to look at other than grass. That might sound like a pretty stupid criticism, and I don't really expect to see many topiary hedges or Henry Moore-style modern art sculptures in the middle of Old Trafford, but if you could just see the edge of the stadium, or a few spectators, the screen would look a little more interesting.

Another problem was with the otherwise excellent 3D mode. There can be a tendency for the game to seize up for a few seconds every now and then – trivial though this might sound, but it is a problem when you're in the middle of a life and death struggle with San Marino. This game's real letdown is the sound

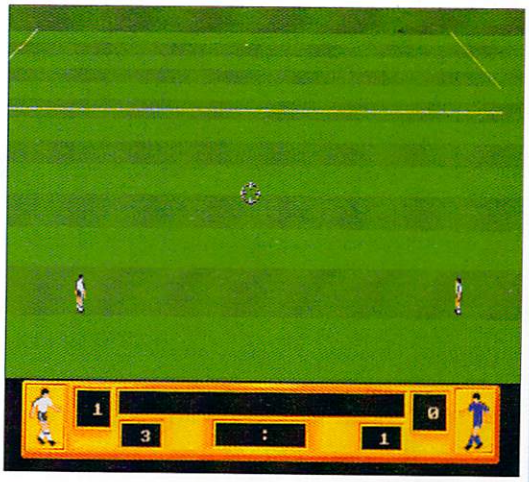


In practice mode you whole team gets to run about for absolutely no reason in particular but to, er... practice



You may think the title screen lacks appeal – who cares, you'll only be looking at it for 30 seconds

which, to put it mildly, is duff. All that can be heard during a match is a constant static-like hissing roar which becomes louder the closer you get to the goal. Whatever you do, don't wait until you're too close to the goal to score, as the resultant piercing roar will probably crack your eardrums or turn you into a nutter.



When you are about to take a goal kick, the idea is to place the crosshair where you want the ball to end up

Final word

I have a gut feeling that Kick Off 96 is going to a bit like skin on a rice pudding (pardon the analogy) – you'll either love it or hate it. I have to admit that I actually think it's a pretty good game. For all its faults, it has those two essential ingredients of a good game, speed and gameplay. The action, particularly in the 2D mode, rockets along at the pace of an England Vs Germany match with two minutes to go until penalties.

I found myself being trounced 10-0 by Man City and, being an ardent Man United fan, couldn't rest until I had at least plastered a few into the back of the City nets (well one anyway).

Basically, Kick Off isn't perfect. It does have its fair share of draw backs and irritating problems, but it has enough interesting, options, views, gameplay and pace to make it a game worth buying.

‘ Another **problem** was with the otherwise excellent **3D mode**. There can be a tendency for the game to **seize up** for a few seconds every now and then ’

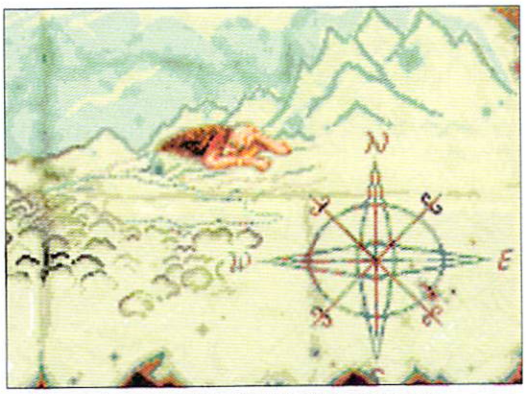
SYSTEM

hints & tips

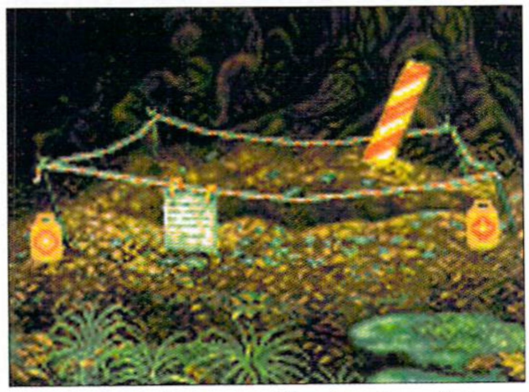
By Andy Maddock

Simon the Sorcerer





Always keep checking back to the map screen to make sure you're going the right way



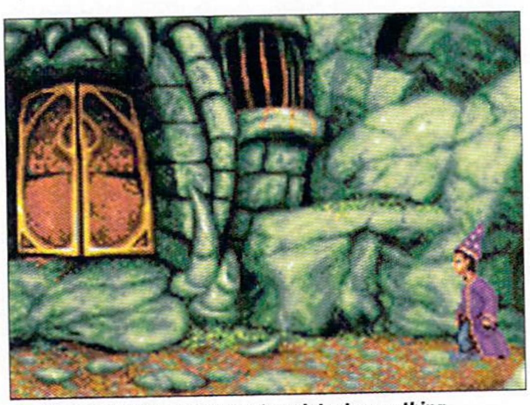
Try and look at every possible option. Remember, if it shows up on the screen, it's useful

The first part of the last bit

As promised last month, here's **part two** of our helpful guide to **Simon the Sorcerer**

Leave the bar and go into the shop to pick up the hammer as well as the white spirit. Go to the goblin village, pick up the paper and give it to the shopkeeper. Now you must go to the Swampling's house. Eat the stew then use the jar with it, and when the Swampling goes, move the crate to reveal a trapdoor and go down it!

Try to cross the plank and then use the hammer, go to Skull Island and pick up the frog's stuff. Now go and find the gorge and walk up to the vine. Talk to the bloke and then offer him the stew, and he will give you a ring in return. Ooh, cheers mate.



Always double check you've picked something up. Don't realise you haven't half an hour later!

Now you have to go back to the shop. Open the crate and find the spell book, take out the loose piece of paper and pick up the ratbone from the floor. Use the paper on the door and the bone in the lock.

Pick up the key off the paper and use the key on the lock. When you open the door, pick up the bucket and go downstairs to talk to the druid, remove the ring and then talk to him again. You have to pass the demon test and then pick up the flaming brandy and mints. Talk to the druid again and then use the bucket on him. He will stick it on his head! Use the brandy on the bucket, and after the druid turns into a frog, open the iron thing and go in. Pick up the hacksaw from the frog and use it on the bars. Now go to the druid's house, give him the frog stuff and he will give you a potion.

The second bit

Go and find the mountain and talk to the talking tree until it talks about pink splodges. Use the white spirit on the splodge and talk to the tree again. Go and find the witches hut and open the door twice. When you get in, pick up the broomstick and start a fight with the witch. Don't say a common magical word though!, and then escape through a mouse thing and head off back to the mountains.

Find the rock face with the missing pin and use your pin and then walk to the cliff. When the snowman has stopped shouting, eat the mints. The bridge should collapse so you can use the witch's broomstick and then eat the potion.

When Max has finished, keep walking left until you come across a stone, leaf and match. Use the match with the lily leaf.

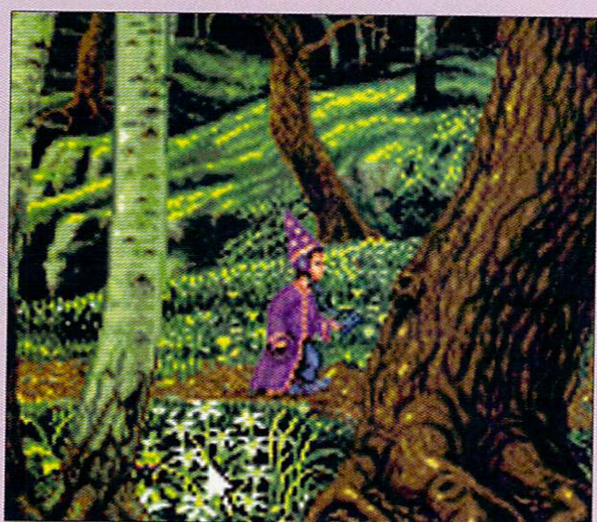
Go and find the seeds and pick them up and use them with the stones to make oil. Use the oil with the tap and then the dog hair.

Go to the other side of the puddle and pick up the tadpole. The frog will move, allowing you to pick up the mushroom. Eat the mushroom and you will grow to your normal healthy self.



Er, here's some more woods for you to explore. Do some magic on some trees or maybe squirrels

The second to last bit



It's very easy to get lost in the woods when you haven't the faintest clue what you're supposed to be doing

Firstly, you must pick up the branch, and use it with the chest. Pick up both the spear and shield and go downstairs to pick up the chest and use it on the block. Move the handle to smash the crate and pick up the contents, then use the spear with the skull and go upstairs to pick up the wand, pouch and book.

Talk to the mirror, go and look at the book and use the sock with the pouch and go down the hole. Go upstairs to talk to the demon and make sure you pick up the chemicals and the book. Look at the spell book and use the chemicals on the shield and then on the hook.

Go downstairs to talk to the mirror and then go back upstairs to talk to the demons again! Go to the teleporter and it will take you to Rondor.

The last bit

The final stage of the game starts with you talking to the attendant. He will give you some vouchers which you need to read. Pick up the sap and some pebbles and use them with the elastic band. Use the catapult with the fire alarm and you can then carry on. Pick up the matches from the stall, cross the bridge and pick up the floor wax.

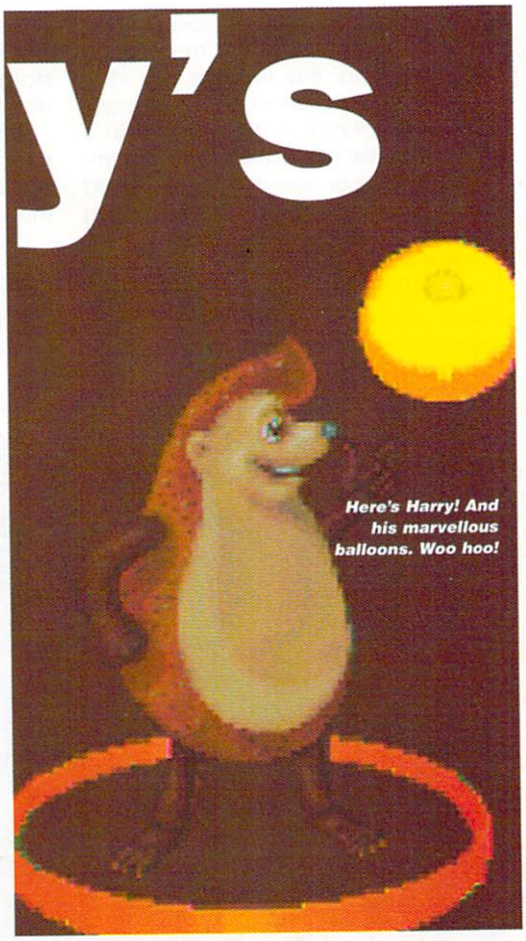
Now you face the evil master himself and all you have to do is wave the wand at him, use the matches on the pits and then use the wand on the pits. The last thing to do is to use the floorwax and, hey presto (pun intended), you have finished Simon the Sorcerer and you can give yourself a big pat on the back for cheating like the cheeky monkeys you are!



The troll bloke will happily sit there until it's time for his tea or something to that effect

Reviewed by Andy Maddock

Harry's balloons



Here's Harry! And his marvellous balloons. Woo hoo!

GRAPHICS	81%
SOUND	74%
GAMEPLAY	78%
OVERALL	80%

I haven't played a decent arcade/puzzle game for as long as I can remember, and for one to come along now when the games market isn't quite at a height of activity seems ironic because I believe Amiga owners always seemed quite partial to a bit of problem solving.

Harry is a hedgehog and his job is to literally mess about with his balloons. Okay, so hedgehogs and balloons may not live next to each other in perfect harmony but, so what - it's only a computer game.

I'm supposed to point out that Harry's Balloons is a sporting challenge where the idea is to continually make decisions which have to be backed up by the skill of the joystick. Hmm, sounds like every other game in the entire world.

Firstly, you are faced with a screen that doesn't look too dissimilar to the old classic Pang, where the idea was to pop as many balloons in the shortest time. Harry's Balloons is very similar, only you have to stop the balloons popping, then collect them and then pop them. See - easy isn't it? All the balloons are colour co-ordinated so you'll know which particular balloon you need to collect, making it all fairly straightforward.

Throughout the game you will also be awarded bonuses which range from magic disks and colour worms to various other things which I haven't actually seen yet.

There are three modes of play, each one completely different to the next. You can have six players in the competition tournament which I suppose is a bit like a league. There's also the knockout tournament whereby every losing player is obviously eliminated, and finally there's the pick-a-round stage where you can choose your favourite stage.

Overall, the game is nothing special, especially graphically, but the whole idea of its existence is to provide gamers with some good old harmless fun like the old days, which it just about manages to do. There is a lot of competition around, especially from old classics, which is a bit of a shame, but as it stands, Harry's Balloons is just about as good as it sounds - fairly average.

PUBLISHER
Collide Design

DEVELOPER
Nick Goring

PRICE
£8.99

DISCS
2

HD INSTALL
Yes

SUPPORTS
A1200

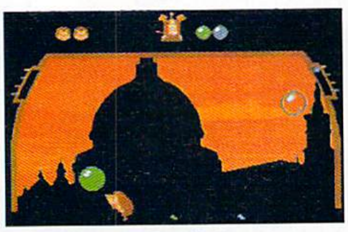
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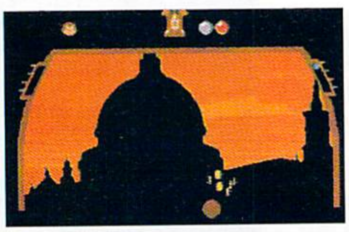
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Final word

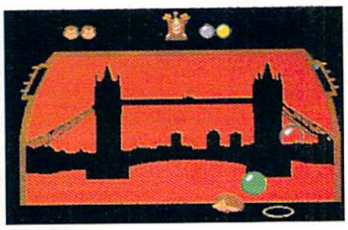
Even though we've recently lacked quality games over the last few months, it's still nice to see the odd attempt by people who have a genuine love for the Amiga. The only way to keep supporting the Amiga games market is to pump money into small companies, giving them funds to make bigger and better games (or move over to the PC), so go on, do yourself a favour - you could do a lot worse.



Right, go on. Pop that green one and all the birds will fancy you - I promise!



Er, don't know what's going on here. Football with hedgehogs or something



Ooh, he's gone to sleep. Good old reliable Harry, that's what we call him

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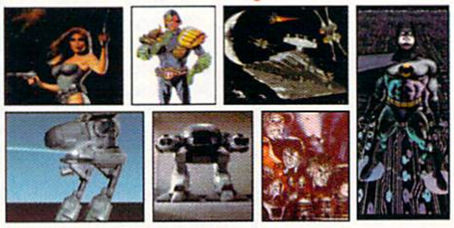


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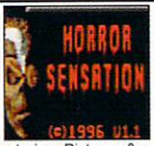


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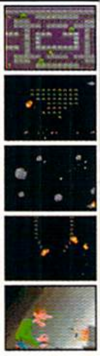


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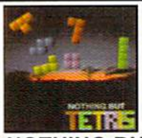
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AMIGA COMPUTING Advertisers' Index

Everyone could do with more memory, Neil Mohr helps by showing you a trick or two

medical

Memory matters

The Amiga's operating system is renown for its efficiency, not only processor wise but also in its memory consumption. Whereas Windows 95 needs 16Mb and System 7.5 needs 8Mb, the average Amiga user is going to be quite comfortable with 6Mb of RAM.

There are times, however, where you could have 6 or 16Mb of RAM and you're still going to start to run out of memory. Now, depending on what you are doing there are certain things you can do before you have to turn to drastic measures. If you are dealing with graphics you could perhaps work at a lower resolution, or with smaller sized graphics. With text documents in Wordworth or Final Writer you could split the document up into two or three sections, and with general programs try running them on small screens with a low number of colours. The best solution, however, is to share programs on the Workbench screen – this can get cluttered but Windows and Mac users muddle by.

If your memory problems require drastic measures then your last resort is to start stripping system software and resources. This could be as simple as removing programs from your WBStartup drawer. If you use WBStartup+ from the coverdisk of issue 99, holding down the control key lets you choose which program should be launched at the start and the shift key disables all the programs in the WBStartup drawer. Depending on how mad

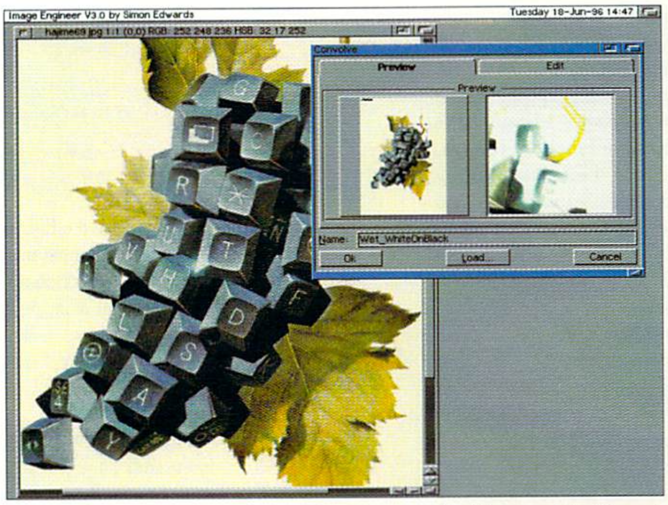


Image Engineer uses a lot of memory, and if you are running out, these tips might help

you are, this can save 600K of RAM. If you have done this and tried reducing the number of colours and size of your Workbench screen – come on you can put up with that NTSC 2 colour Workbench can't you – then it's time to get really serious.

Something you are going to have to use is the early startup menu, and to use this you must do the following. When you reset your machine, hold down both the mouse buttons and it will pop up. From here you can view boards added to your machine, select what chipset version the machine should use and disable and select partitions and disk drives.

What we are interested in is the boot with no startup-sequence button. If you click this you will boot start you machine without running the startup-sequence, and you will then have access to as much memory as possible on your machine. If you type 'avail' you should see that under 300K is taken up by the basic operating system libraries and devices such as exec, intuition, DOS, graphics and a good number of other essential system resources.

Running free

At this point you could try running programs. If you know where the program you want is located you can change your directory to where it is and try to run it. You should be aware, though, that many programs require assigns to be made beforehand. If the program was installed via the standard Amiga installer then any assigns will reside in the user-startup file.

Before you run the program you will have to make the assigns yourself. Look in the user-startup file – found in the S directory – using any text editor or MultiView and see if that program has any assigns. Make a note of the assigns, go back through the previous steps and change to the directory that the program is in. You can now make the assigns by typing assign device name here: "" which points the assign to the current directory.

If you do not fancy fiddling around with the CLI and want to get Workbench loaded, there are only really three more steps involved. All you have to do is type the following three lines:

```
assign env: envarc:
assign t: ram:
loadwb
```

The first sets up the assign for all your Workbench and program preferences. As standard, these are stored in the ENVARC assign on disk and are normally copied out to RAM, with the second assign, ENV, made to this new location. Therefore, when you tell a program to use a new setup these preferences are copied to RAM, and if you press save the new preferences are permanently saved to disk. The first assign is a crafty way of circumventing this need to copy the preferences to RAM.

The second assign sets the standard temporary assign path T: to RAM. You may want it to point to a location on disk SYS:, but you will have to decided that yourself.

The third assign enables you to load Workbench. As I said before, if you have WBStartUp+ you must hold down the shift key as well, otherwise you will have to copy everything out of the WBStartup drawer beforehand.

Normally, it is easier to create a drawer in WBStartup named disabled and copy all the unwanted programs into there. Once you have done all this you will have Workbench loaded with as much memory free as possible, and if you type 'avail' again there should be less than 400K used – only an extra 200K to load Workbench cannot be bad.

Again, possible problems may occur such as there being no assigns made so, as before, you will have to make them yourself. For AGA owners, you should type in the line setpatch anyway as this 'starts' the AGA chipset as well as correcting a few system bugs, and will allow programs to access the AGA screen modes.

Paul Overaa shows the purpose, and possible uses, of a pair of instructions

assembler

Link and Unlk exposed!

Everyone who has ever done any high-level language coding will know all about local variables, i.e. those variables that mysteriously 'appear' during the time a function is being used, yet vanish into obscurity as the function returns. Underneath the surface these variables are often created by the compiler using Link and Unlnk instructions and this month, in preparation for some topics coming up in subsequent issues, I thought I'd look at the instructions and explain how they work.

Link actually performs a number of jobs. Firstly, it preserves the contents of a specified address register on the stack and then copies the current value of the stack pointer into it. The purpose of this particular piece of 680x0 jiggery-pokery is to establish a 'frame pointer', a register that can be used to access temporary stack workspace. 680x0 stacks, as most of you will know, grow downwards in memory, so by decreasing the real stack pointer by some specified value the Link instruction is able to create an area of the stack that can be used as temporary workspace. To return the stack to its original state an Unlk instruction is used, and listing 1 shows typical placements of the two instructions when they are used to allocate local variable space from within a subroutine.

```
SomeRoutine link      a5,#-LocalData_SIZEOF   define workspace area
            movem.l   d0-d7/a0-a2, -(sp)      preserve regs
            -         -         -
            Subroutine would use (a5) displacements
            to access and local workspace
            -         -         -
            movem.l   (sp)+,d0-d7/a0-a2       restore regs
            unlk      a5        rts
```

Listing 1: Example of how the 680x0 Link and Unlk instructions would be used

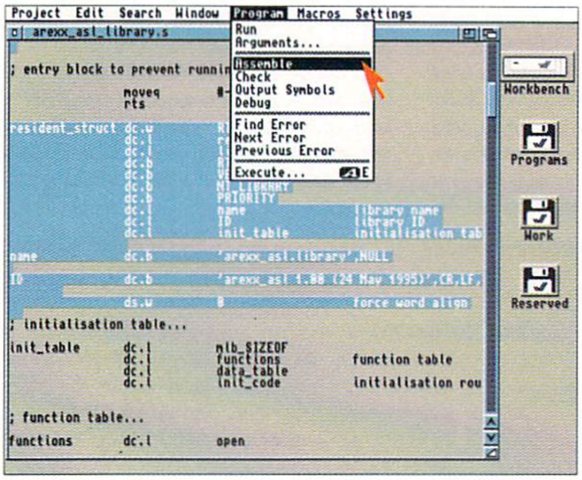
Figure 1 shows the effect that these instructions have on the stack itself and, as you can see, the Link instruction is effectively creating a 'hole' in the stack. By using negative displacements from the frame pointer register it is therefore possible to access this temporary workspace and use it for whatever purpose you like.

Notice, incidentally, that because the real stack pointer is set to the low end of the temporary workspace, the space will never be over-written by normal stack operations – even though any number of new items may be pushed onto the stack. At the end of the subroutine, any additional items placed on the stack will, of course, be removed by the routine itself and the Unlk instruction therefore reinstates the stack pointer by loading it with the contents of the frame pointer.

The link/unlnk instructions can be used to create up to 32768 bytes of stack workspace, and the only thing you need to watch for is the fact that the workspace size always needs to be provided as a negative value (because the stack is growing downwards).

```
                                        ^
                                        |
                                   HIGH MEMORY
                          |------------------------|
                          . existing data including .
                          . any parameters placed on.
                          . the stack prior to the  .
                          . subroutine call
                          |                        |
                          |------------------------|
                          |   return address   |
                          |------------------------|
(a5) ----------------->   |  original a5 contents  |
(frame pointer)           |------------------------|
                          .            ^           .
                          .            |           .
                          .            |           .
                          .temporary workspace     .
                          .            |           .
                          .            |           .
                          |----------|-------------|
current (sp) --------->   |            v           |
                          |------------------------|
                          |                        |
                          |------------------------|
                          .                        .
                          .                        .
                          .                        .
                          |------------------------|
                          |                        |
                          |------------------------|
                                   LOW MEMORY
                                        |
                                        v
```

Figure 1: This diagram shows the effect of the Link instruction on the stack



Link/Unlk instructions play a big part in creating reentrant code

Potential applications

As well as providing an efficient means of creating local variables in high-level languages, Link and Unlk instructions have a number of other important uses. With the Amiga's O/S, for instance, certain pieces of code have to be written in a way that allows them to be used by more than one task at a time. One case in point are resident commands which are only ever loaded into RAM once, yet are designed so that they can be simultaneously used by two or more tasks.

Amiga function libraries are another example where it's necessary to produce code which can be used in this fashion. One program might call a particular library function and, whilst part way through the execution of that routine, Exec might perform a task-switch and allow some other program to run which subsequently makes the same library call.

Code which behaves properly under these sorts of conditions is called 'reentrant' and is often not that difficult to produce. Read-only data such as static text strings, or global variables like library bases (whose values do not change once a library is first open), can all safely be used whilst keeping code reentrant, but the key factor is the elimination of any global variables whose values might change each time the code is executed. The idea is to replace these items with equivalent instance-specific local variables and it is here, as you'll see next month, that the Link/Unlk instruction pair begin to show their full power.

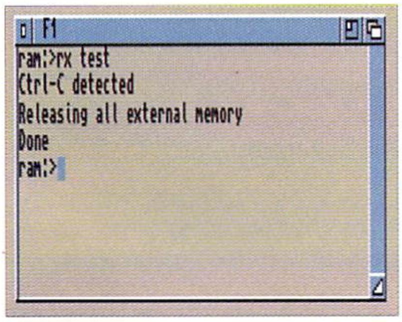
Paul Overaa explains how to deallocate externally acquired resources

Safe exit paths

Everyone knows that when ARexx finds a syntax error in a script it immediately stops the script from running and throws up an error message. It's also common knowledge that you can deliberately stop a script in its tracks by hitting Ctrl-C. What you might not know, however, is that both these situations are actually part of a far more general ARexx signalling and interrupt scheme, whose facilities are extremely useful for controlling what happens when an error or various other signal generating conditions occur.

Perhaps the most important use of ARexx's interrupt mechanism is in providing 'safe' script exit paths, i.e. exit paths where everything that should happen before a script terminates does happen. Supposing, for example, your script allocates some memory using the rexxsupport library's AllocMem() function or makes use of a third-party library where some library function allocates additional memory resources outside those which ARexx itself handles. Under normal circumstances your script would (or should), deallocate those resources when it finished executing, but this may not always happen. If, say, due to unexpected termination because the user hit Ctrl-C, your script did not perform any required deallocations, then memory would be lost, windows might remain open and so on.

The trick to coping with these sorts of situations is to monitor all possible break and error conditions and force your script to take the appropriate closedown actions if anything untoward happens. The good news at this point is that ARexx provides a SIGNAL instruction which enables a collection of interrupt sources (shown in listing 1) to be selectively turned on or off. When an interrupt condition occurs two things happen: Firstly, the contents of two ARexx variables – SIGL and RC – are modified to reflect the interrupt condition. SIGL becomes set to the current line number so that programs can determine the source line that was being executed when the interrupt occurred, and RC is set to the appropriate return code if an error or syntax interrupt has occurred. Secondly, the designated piece of interrupt code gets called.



ARexx's interrupt facilities are ideal for preventing resources from hanging when a user types Ctrl-C

Listing 1: ARexx's interrupt sources

```
BREAK_C     traps an AmigaDOS control-C.
BREAK_D     traps an AmigaDOS control-D.
BREAK_E     traps an AmigaDOS control-E.
BREAK_F     traps an AmigaDOS control-F.
ERROR       traps errors indicated by non-zero command return values.
FAILURE     traps command return codes greater than FAILAT level.
HALT        traps externally generated script halt requests.
IOERR       traps I/O errors.
NOVALUE     traps use of uninitialised variables.
SYNTAX      traps many syntax and execution errors.
```

Listing 2: Code fragment showing some simple break handling

```
/* break.rexx */
signal on break_c /* force branch to script's Ctrl-C routine */
mem_p=GetSpace(1024,0) /* allocate some memory */

< main bulk of script >

quit:
call FreeMem(mem_p,1024)
exit /* end of program */

break_c:
say 'Ctrl-C trapped'
signal quit
```

Listing 3: Checking for a specific error interrupt

```
/* missing port (error 13) trap */

signal on syntax
address 'nonexistent' /* just an example port that doesn't exist */
/* now try to send a command to non-existent port... */
'are you there port?'
quit:
exit /* end of program */

syntax:
select
when rc=13 then
        do
                say 'No port available called...' Address()
                say 'The utility which sets up this port must be'
                say 'running before this script is executed!'
        end
        otherwise say ErrorText(rc)
end
signal quit
```

SETTING UP AN INTERUPT

You need to make the signal name for detecting the label for the interrupt code in your script. In the fragment shown in listing 2, for example, I've added some Ctrl-C break handling code by using a 'signal on break_c' statement. As you'll see this is also the label for my associated break handler code and if a user hits Ctrl-C whilst the script was executing, the program would give the message outlined in the break handler code and then pass control back to the quit: label. This ensures that the FreeMem() function was still called before the script terminated.

There are plenty of uses for these types of arrangements. To avoid seeing your scripts come to a halt with an 'Error 13: Host environment not found' message that occurs if a port associated with an external host cannot be found, you could trap this error. You can do the same thing with almost all other ARexx detected errors and, in fact, the best way to come to terms with these facilities is to look at the places in your own scripts where break or error handling could be improved – and then experiment.

To get you started, take a look at the code in listing 3 – this checks the RC variable to add a slightly more helpful error message if a specified port cannot be found. Notice, incidentally, that for all errors where RC does not equal 13, we use the ErrorText() function in conjunction with the RC code to generate the normal ARexx error message!